

Photograph C-24: View of S-1, an ephemeral stream, looking south (June 2013).

Lake Avenue Substation Project Lorain County, Ohio



Ground Photographs



Photograph C-25: View of S-2, an ephemeral stream, looking east (June 2013).

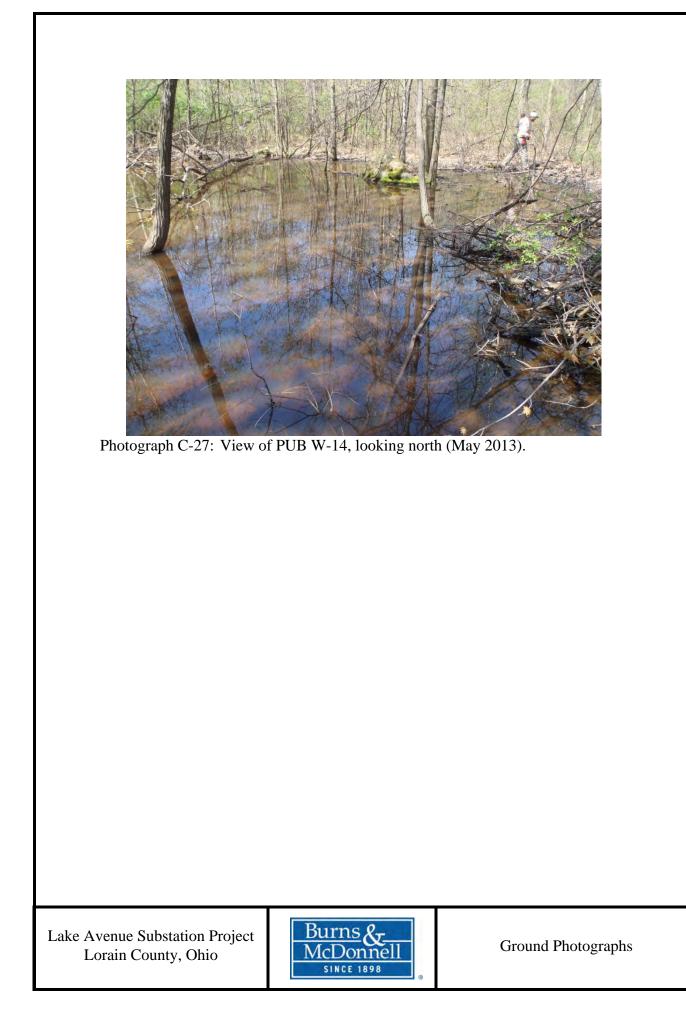


Photograph C-26: View of S-2, an ephemeral stream, looking east (June 2013).

Lake Avenue Substation Project Lorain County, Ohio



Ground Photographs



APPENDIX D - ORAM SUMMARY AND CHARACTERIZATION WORKSHEETS

# **ORAM Summary Worksheet**

W - 7

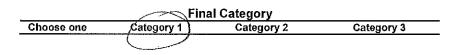
		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES NO	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	2	
	Metric 2. Buffers and surrounding land use	3	
	Metric 3. Hydrology	7	
	Metric 4. Habitat	8	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	6	
	TOTAL SCORE	26	Category based on score breakpoints
		0	

Complete Wetland Categorization Worksheet.

$$W-7$$

Choices	Circle one	-	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland		Is quantitative rating score <i>less</i> than the Category 2 scoring threshold ( <i>excluding</i> gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over- categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	NØ	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	NO	Is quantitative rating score greater than the Category 2 scoring threshold <i>(including</i> any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the <i>"gray zone"</i> for Category 1 or 2 or Category 2 or 3 wetlands?	YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO)	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1- 54(C).
Does the wetland otherwise exhibit <i>moderate OR superior</i> hydrologic OR habitat, OR recreational functions AND the wetland was <i>not</i> categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES ( Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	NO Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, loca or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

## Wetland Categorization Worksheet



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# End of Ohio Rapid Assessment Method for Wetlands.

W-14, Lako Aucauce

# **ORAM Summary Worksheet**

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		circle	······································
		answer or	
		insert	Result
		score	Rooun
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES (NO)	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES NO	If yes, Category 1.
	Question 6. Bogs	YES (NO)	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	1	
	Metric 2. Buffers and surrounding land use	8	
	Metric 3. Hydrology	14	
	Metric 4. Habitat	9	
	Metric 5. Special Wetland Communities	n	
	Metric 6. Plant communities, interspersion, microtopography	7	
	TOTAL SCORE		Category based on score breakpoints
	· · · · · · · · · · · · · · · · · · ·	39	Modified 2

**Complete Wetland Categorization Worksheet.** 

W-14, Lake Avenue

# Wetland Categorization Worksheet

Choices	Circle one	-	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	NØ	Is quantitative rating score <i>less</i> than the Category 2 scoring threshold ( <i>excluding</i> gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status		Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	(NO)	Is quantitative rating score <i>greater</i> than the Category 2 scoring threshold ( <i>including</i> any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES Wetiand is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria		Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1- 54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	NO Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, loca or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

#### Final Category Choose one Category 1 (Category 2) Category 3

## End of Ohio Rapid Assessment Method for Wetlands.

# W-16

# **ORAM Summary Worksheet**

. · ·		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered	YES NO	If yes, Category 3.
	Species Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES NO	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES (NO)	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	0	
(aung	Metric 2. Buffers and surrounding land use	7	
	Metric 3. Hydrology	, , , , , , , , , , , , , , , , , , , ,	
	Metric 4. Habitat	8	
	Metric 5. Special Wetland Communities	Ô	
	Metric 6. Plant communities, interspersion, microtopography	8	
	TOTAL SCORE	34	Category based on score breakpoints / O∧ 2 gray ≥0

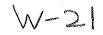
Complete Wetland Categorization Worksheet.

Choices	Circle one	~	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over- categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	(NO)	Is quantitative rating score greater than the Category 2 scoring threshold ( <i>including</i> any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES Wetland is assigned to the appropriate category based on the scoring range	(NO)	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the <i>"gray zone"</i> for Category 1 or 2 or Category 2 or 3 wetlands?	YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1- 54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was <i>not</i> categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

# Wetland Categorization Worksheet

# Final Category Choose one Category 1 Category 2 Category 3

## End of Ohio Rapid Assessment Method for Wetlands.



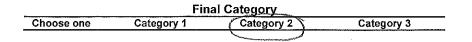
# **ORAM Summary Worksheet**

<u></u>		circle answer or	
		insert	Result
	F	score	
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES (NO')	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES (NO)	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO)	If yes, Category 1.
	Question 6. Bogs	YES (NO)	If yes, Category 3.
	Question 7. Fens	YES (NO)	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES (NO')	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	1	
-	Metric 2. Buffers and surrounding land use	13	
	Metric 3. Hydrology	1/	
	Metric 4. Habitat	14	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	4	
	TOTAL SCORE	43	Category based on score breakpoints Modified 2

Complete Wetland Categorization Worksheet.

Choices	Circle one	~	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	NO	Is quantitative rating score <i>less</i> than the Category 2 scoring threshold ( <i>excluding</i> gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over- categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	NO)	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	NO)	Is quantitative rating score <i>greater</i> than the Category 2 scoring threshold <i>(including</i> any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the <i>"gray zone"</i> for Category 1 or 2 or Category 2 or 3 wetlands?	Vetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1- 54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	NO Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

# Wetland Categorization Worksheet



# End of Ohio Rapid Assessment Method for Wetlands.

## APPENDIX E - OHIO EPA QUALITATIVE HABITAT EVALUTATION INDEX AND USE ASSESSMENT SHEETS



Qualitative Habitat Evaluation Index and Use Assessment Field Sheet

<b>ChicEPA</b>		at Evaluation Index sment Field Sheet	QHEI Scol	re: 32
Stream & Location:			RM: Dat	e:_06/_06/
	Scorei	rs Full Name & Affiliation:	Gordon Shaw, Burns	Office verified
River Code:		Lat./Long.: (NAD 83 - decimal °)4¶	/82	
BEST TYPES         POOL RIFFL           BLDR /SLABS [10]	every type present OTHER TYPES POO HARDPAN [4] DETRITUS [3] MUCK [2] SILT [2] ARTIFICIAL [0] (Score natural substration	DL RIFFLE ORIGIN		AL [0]
2] ///STREAM COVER Indicate pr quality; 2-I quality; 3-Highest quality in moderate o diameter log that is stable, well develop UNDERCUT BANKS [1] 1 OVERHANGING VEGETATION [ SHALLOWS (IN SLOW WATER) ROOTMATS [1] Comments	Adderate amounts, but not of h r greater amounts (e.g., very la ed rootwad in deep / fast wate POOLS > 70cm [2 1] ROOTWADS [1]	lighest quality or in small amounts arge boulders in deep or fast water	r, large Check ONE pools. EXTENSIV ERS [1] MODERAT TES [1] XSPARSE 5	E 25-75% [7]
3] CHANNEL MORPHOLOGY C SINUOSITY DEVELOPMEN HIGH [4] EXCELLENT [ MODERATE [3] GOOD [5] LOW [2] FAIR [3] NONE [1] X POOR [1] Comments	NT CHANNELIZATI	ON STABILITY      HIGH [3]      MODERATE [2]      LOW [1]		Channel Maximum 20
EROSION	ARIAN WIDTH         E > 50m [4]         DERATE 10-50m [3]         BROW 5-10m [2]         Y NARROW < 5m [1]	FLOOD PLAIN QUALI OREST, SWAMP [3] SHRUB OR OLD FIELD [2] RESIDENTIAL. PARK, NEW FIELD	TY R CONSERVAT CONS	NDUSTRIAL [0] NSTRUCTION [0]
Check ONE (ONLY!)         Check           > 1m [6]         POOL WI           0.7-<1m [4]	IANNEL WIDTH         ONE (Or 2 & average)         DTH > RIFFLE WIDTH [2]         DTH = RIFFLE WIDTH [1]         DTH < RIFFLE WIDTH [0]	CURRENT VELOCITY Check ALL that apply TORRENTIAL [-1] SLOW [1] VERY FAST [1] INTERSTI FAST [1] INTERSTI MODERATE [1] EDDIES [1 Indicate for reach - pools and ri	TIAL [-1] TENT [-2]	Pool / Current Maximum 12
BEST AREAS > 10cm [2] MAXIN	Check ONE           N DEPTH         RIFFLE           IUM > 50cm [2]         STABLE (0           IUM < 50cm [1]	(Or 2 & average). / RUN SUBSTRATE RIF e.g., Cobble, Boulder) [2]	a population	Riffle /
	VERY LOW - LOW [2-4] MODERATE [6-10] HIGH - VERY HIGH [10-6]	%POOL: %RUN:	%GLIDE: 10 %RIFFLE:	Gradient Maximum 10

AJ SAMPLED REACH Check ALL that apply	Comment RE: Reach consistency/	s reach typical of steam?, Recreation	n/Observed - Inferred, Other	r/ Sampling observations, Concerns, Acc	ess directions, etc.
METHOD STAGE BOAT WADE L. LINE STAGE					
□ 0.5 Km □ 0.2 Km CLARITY	B] AESTHETICS	D] MAINTENANCE	Circle some & COMMENT	E] ISSUES	F] MEASUREMENTS
□ 0.15 Km □ < 20 cm □		PUBLIC / PRIVATE / BOTH / NA ACTIVE / HISTORIC / BOTH / NA		WWTP / CSO / NPDES / INDUSTRY HARDENED / URBAN / DIRT&GRIME	x width
□ 0.12 Km □ 20-<40 cm □ □ OTHER □ 40-70 cm □		YOUNG-SUCCESSION-OLD		<b>CONTAMINATED / LANDFILL</b>	$\overline{\mathbf{x}}$ depth max. depth
□ > 70 cm/ CTB	DISCOLORATION	SPRAY / SNAG / REMOVED MODIFIED / DIPPED OUT / NA		BMPs-CONSTRUCTION-SEDIMENT LOGGING / IRRIGATION / COOLING	x bankfull width
		LEVEED / ONE SIDED RELOCATED / CUTOFFS		BANK / EROSION / SURFACE FALSE BANK / MANURE / LAGOON	bankfull x depth W/D ratio
CANOPY 1st cr ☐ > 85%- OPEN	m TRASH / LITTER	MOVING-BEDLOAD-STABLE		WASH $H_20$ / TILE / $H_20$ TABLE	bankfull max. depth
□ 55%-<85% 2nd cr		ARMOURED / SLUMPS		ACID / MINE / QUARRY / FLOW	floodprone x <sup>2</sup> width
	CSOs/SSOs/OUTFALLS	ISLANDS / SCOURED IMPOUNDED / DESICCATED		NATURAL / WETLAND / STAGNANT PARK / GOLF / LAWN / HOME	entrench. ratio
□ 10%-<30% <i>C] RECR</i> □ <10%- CLOSED	<i>POOL:</i> <b>&gt;100ft</b> <sup>2</sup> <b>&gt;3ft</b>	FLOOD CONTROL / DRAINAGE		ATMOSPHERE / DATA PAUCITY	

Stream Drawing:



Qualitative Habitat Evaluation Index and Use Assessment Field Sheet

**QHEI Score:** 

31

Date: 06/ \_06/ Stream & Location: RM: Stream . Scorers Full Name & Affiliation: Lat./ Long.: Gordon Shaw, Burns & Office verified River Code: STORET #: location /8\_2 (NAD 83 - decimal 44 1] SUBSTRATE Check ONLY Two substrate TYPE BOXES: Check ONE (Or 2 & average) estimate % or note every type present OTHER TYPES POOL RIFFLE **BEST TYPES** ORIGIN QUALITY POOL RIFFLE HEAVY [-2] 🗌 🗌 HARDPAN [4] LIMESTONE [1] BLDR /SLABS [10] TILLS [1] MODERATE [-1] Substrate BOULDER [9] DETRITUS [3] SILT WETLANDS [0] COBBLE [8] NORMAL [0] □ □ MUCK [2] HARDPAN [0] GRAVEL [7] FREE [1] MODERAL DI MODERAL DI NORMAL [0] 3 EXTENSIVE [-2] SANDSTONE [0] □ □ SAND [6] É RIP/RAP [0] MODERATE [-1] BEDROCK [5] (Score natural substrates; ignore Maximum NUMBER OF BEST TYPES: 4 or more [2] sludge from point-sources) 20 SHALE [-1] 3 or less [0] **Comments** COAL FINES [-2] 2] INSTREAM COVER Indicate presence 0 to 3: 0-Absent; 1-Very small amounts or if more common of marginal quality; 2-Moderate amounts, but not of highest quality or in small amounts of highest AMOUNT quality; 3-Highest quality in moderate or greater amounts (e.g., very large boulders in deep or fast water, large diameter log that is stable, well developed rootwad in deep / fast water, or deep, well-defined, functional pools. Check ONE (Or 2 & average) EXTENSIVE >75% [11] **UNDERCUT BANKS [1]** \_ OXBOWS, BACKWATERS [1] MODERATE 25-75% [7] POOLS > 70cm [2] \_\_\_\_ **OVERHANGING VEGETATION** [1] 1 **ROOTWADS** [1] **AQUATIC MACROPHYTES [1]** SPARSE 5-<25% [3] NEARLY ABSENT <5% [1] SHALLOWS (IN SLOW WATER) [1] BOULDERS [1] LOGS OR WOODY DEBRIS [1] **ROOTMATS** [1] Cover Comments Maximum 3 20 3] CHANNEL MORPHOLOGY Check ONE in each category (Or 2 & average) SINUOSITY DEVELOPMENT **CHANNELIZATION** STABILITY EXCELLENT [7] **NONE** [6] HIGH [3] MODERATE [2] GOOD [5]  $\Box$ MODERATE [3] **RECOVERED** [4] FAIR [3] RECOVERING [3] LOW [2] LOW [1] Channel **NONE** [1] **POOR** [1] RECENT OR NO RECOVERY [1] Maximum **Comments** 6 20 4] BANK EROSION AND RIPARIAN ZONE Check ONE in each category for EACH BANK (Or 2 per bank & average) River right looking downstream **RIPARIAN WIDTH** FLOOD PLAIN QUALITY EROSION 🙀 🛱 WIDE > 50m [4] □ FOREST, SWAMP [3] CONSERVATION TILLAGE [1] I INONE / LITTLE [3] ☐ ☐ SHRUB OR OLD FIELD [2] URBAN OR INDUSTRIAL [0] **MODERATE 10-50m [3]** MODERATE [2] □ □ NARROW 5-10m [2] CRESIDENTIAL, PARK, NEW FIELD [1] □ □ HEAVY / SEVERE [1] □ □ VERY NARROW < 5m [1] FENCED PASTURE [1] Indicate predominant land use(s) □ □ OPEN PASTURE. ROWCROP [0] past 100m riparian. Riparian 9 Comments Maximum 10 5] POOL / GLIDE AND RIFFLE / RUN QUALITY Recreation Potential MAXIMUM DEPTH **CHANNEL WIDTH CURRENT VELOCITY** Check ONE (ONLY!) Check ONE (Or 2 & average) Check ALL that apply **Primary Contact** POOL WIDTH > RIFFLE WIDTH [2] □ TORRENTIAL [-1] □ SLOW [1] 🗌 > 1m [6] Secondary Contact 0.7-<1m [4] POOL WIDTH = RIFFLE WIDTH [1] VERY FAST [1] INTERSTITIAL [-1] (circle one and comment on back) FAST [1] 0.4-<0.7m [2] POOL WIDTH < RIFFLE WIDTH [0]</p> INTERMITTENT [-2] MODERATE [1] EDDIES [1] 0.2-<0.4m [1] Pool / Current **□** < 0.2m [0] Indicate for reach - pools and riffles. Maximum **Comments** 12 Indicate for functional riffles; Best areas must be large enough to support a population □ NO RIFFLE [metric=0] of riffle-obligate species: Check ONE (Or 2 & average). **RIFFLE DEPTH RUN DEPTH RIFFLE / RUN SUBSTRATE RIFFLE / RUN EMBEDDEDNESS** BEST AREAS > 10cm [2] MAXIMUM > 50cm [2] STABLE (e.g., Cobble, Boulder) [2] **NONE** [2] MAXIMUM < 50cm [1] MOD. STABLE (e.g., Large Gravel) [1] BEST AREAS 5-10cm [1] LOW [1] Riffle / BEST AREAS < 5cm UNSTABLE (e.g., Fine Gravel, Sand) [0] MODERATE [0] [metric=0] Comments 8 6] GRADIENT ( VERY LOW - LOW [2-4] 28 ft/mi) %POOL %GLIDE: 10 Gradient MODERATE [6-10] **DRAINAGE AREA** 10 Maximum %RIFFLE HIGH - VERY HIGH [10-6] %RUN: mi<sup>2</sup>) ( 0. 10

Comment RE: Reach consistency/ Is reach typical of steam?, Recreation/ Observed - Inferred, Other/ Sampling observations, Concerns, Access directions, etc. A] SAMPLED REACH Check ALL that apply METHOD STAGE BOAT 1st -sample pass- 2nd 🗌 HIGH L. LINE ☐ OTHER LOW DISTANCE 0.5 Km **B] AESTHETICS** CLARITY D] MAINTENANCE E] ISSUES F] MEASUREMENTS Circle some & COMMENT 0.2 Km 1st --sample pass-- 2nd **NUISANCE ALGAE** PUBLIC / PRIVATE / BOTH / NA WWTP / CSO / NPDES / INDUSTRY x width 0.15 Km □ < 20 cm ☐ INVASIVE MACROPHYTES HARDENED / URBAN / DIRT&GRIME ACTIVE / HISTORIC / BOTH / NA x depth 0.12 Km □ 20-<40 cm □ EXCESS TURBIDITY □ OTHER YOUNG-SUCCESSION-OLD **CONTAMINATED / LANDFILL** max. depth 🗆 40-70 cm **DISCOLORATION** SPRAY / SNAG / REMOVED **BMPs-CONSTRUCTION-SEDIMENT** x bankfull width □ > 70 cm/ CTB FOAM / SCUM MODIFIED / DIPPED OUT / NA LOGGING / IRRIGATION / COOLING SECCHI DEPTH bankfull x depth meters □ OIL SHEEN LEVEED / ONE SIDED **BANK / EROSION / SURFACE** W/D ratio TRASH / LITTER **RELOCATED / CUTOFFS** FALSE BANK / MANURE / LAGOON CANOPY 1st cm bankfull max. depth WASH H<sub>2</sub>0 / TILE / H<sub>2</sub>0 TABLE NUISANCE ODOR **MOVING-BEDLOAD-STABLE** pass > 85%- OPEN floodprone x<sup>2</sup> width □ SLUDGE DEPOSITS **ARMOURED / SLUMPS** ACID / MINE / QUARRY / FLOW 55%-<85% 2nd cm entrench. ratio CSOs/SSOs/OUTFALLS NATURAL / WETLAND / STAGNANT **ISLANDS / SCOURED** 30%-<55% **IMPOUNDED / DESICCATED** PARK / GOLF / LAWN / HOME Legacy Tree: **C] RECREATION** AREA DEPTH **10%-<30%** FLOOD CONTROL / DRAINAGE **ATMOSPHERE / DATA PAUCITY** *POOL*: □ >100ft<sup>2</sup> □ >3ft <10%- CLOSED</p>

Stream Drawing:

December 29, 2014

Mr. William Beach, CPG Supervisor, Energy Delivery Systems FirstEnergy Corp. 76 South Main Street Akron, Ohio 44308

Re: Wetland Delineation Report Lake Avenue Substation Project, Alternate Site American Transmission Systems, Incorporated Burns & McDonnell Project No: 65085

Dear Mr. Beach:

Burns & McDonnell Engineering Company, Inc. (Burns & McDonnell) was retained by American Transmission Systems, Incorporated. (ATSI), a FirstEnergy company, to provide wetland delineation services for the proposed Lake Avenue Substation and associated transmission lines (Project) in Lorain County, Ohio (Figure A-1, Appendix A). This wetland delineation supports efforts to design the Project to avoid and minimize impacts to wetlands and other waters of the U.S. and of the State of Ohio, where possible. The following sections provide information on the proposed Project and summarize the completed wetland delineation.

#### **INTRODUCTION**

ATSI plans to construct the new Lake Avenue Substation in the vicinity of the City of Elyria, Lorain County, Ohio. The Project purpose is to improve electric reliability in the area. The proposed Project will include installing a new substation that will provide for transformation from 345 kilovolt (kV) to 138 kV and will interconnect to existing 345 kV and 138 kV overhead transmission lines in the vicinity of the new substation. An Alternate Site for the substation has been identified within Elyria Township. In addition to the substation, ATSI will install new 345 kV and 138 kV transmission extensions from the new Lake Avenue Substation to the nearby existing 345 kV and 138 kV transmission lines in the area. The new substation would likely be located adjacent to or partially under the existing 345 kV transmission lines, while the 138 kV transmission line extensions would be approximately 3,000 feet or more in length.

The Project has the potential to impact wetlands or other waters of the U.S. that may be under the jurisdiction of the U.S. Army Corps of Engineers (USACE) as designated by Section 404 of the Clean Water Act. A wetland delineation of the Alternate Site and portions of the associated corridors for the 345 kV and the 138 kV transmission extensions (Survey Area) was conducted to evaluate for the presence of waters of the U.S., including streams, creeks, and ponds. The Survey Area encompasses approximately 57 acres.

#### **METHODS**

The following discussions summarize the methods used for the review of existing data and the wetland delineation.



#### **Data Review**

Burns & McDonnell reviewed available background information for the Survey Area prior to conducting a site visit. This available background information included:

- U.S. Geological Survey (USGS) 7.5-minute topographic map (1980 Lorain, OH, and 1979 Avon, OH, quadrangles)
- U.S. Fish & Wildlife Service (USFWS) National Wetland Inventory (NWI) maps
- National Agriculture Imagery Program (NAIP) aerial photography (2011 and 2013)
- U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) 2011 Soil Survey Geographic (SSURGO) digital data for Lorain County.

Maps generated from this data are included as Figures A-2 and A-3 in Appendix A.

#### Wetland Delineation

A wetland delineation was completed in July 2012, in accordance with the 1987 *Corps of Engineers Wetlands Delineation Manual* (1987 Manual) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region – Version* 2.0 (Regional Supplement). Sample plots were established at multiple locations and Wetland Determination Data Forms from the Regional Supplement were completed to characterize the Survey Area (Appendix B). Vegetation, soil conditions, and hydrologic indicators were recorded at each of these sample plots. Locations of sample plots and other identified features were surveyed using a sub-meter-accurate global positioning system (GPS) unit. Natural color photographs were taken onsite and are included in Appendix C (Photographs C-1 through C-21).

Each delineated wetland was assigned a category using the Ohio Rapid Assessment Method (ORAM) for Wetland Categorization. According to Ohio Administrative Code, Category 1 wetlands have minimal habitat and minimal hydrological and recreational functions. These wetlands do not provide critical habitat for threatened or endangered species. Category 2 wetlands have moderate wildlife habitat or hydrological or recreational functions. Category 2 wetlands are dominated by native vegetation but generally do not contain threatened or endangered species habitat. Category 3 wetlands have superior habitat or hydrological or recreational functions. These wetlands often provide habitat for threatened or endangered species.

The State of Ohio affords different levels of protection to wetlands based on wetland quality. The ORAM 10 Page Form for Wetland Categorization was completed for each delineated wetland and a preliminary ORAM score for each wetland was determined. A copy of the ORAM Summary Worksheet and Wetland Categorization Worksheet for each delineated wetland is located in Appendix D.



### RESULTS

The following sections describe the results of the existing data review and the completed wetland delineation.

## **Existing Data Review**

The existing USGS topographic maps were reviewed to familiarize Burns & McDonnell wetland personnel with the topography and potential locations of waters of the U.S. (Figure A-2). The topographic maps indicate a slight rise in elevation toward the southwestern corner of the Survey Area. The topographic map also identifies much of the Survey Area as a sandpit. The topographic map indicates the presence of two ponds within the Survey Area; one in the northeastern corner of the Survey Area and one in the center. No streams are indicated on the topographic map.

The USFWS NWI map indicates the presence of four palustrine unconsolidated (PUB) wetlands within the Survey Area; one in the northeastern corner of the Survey Area and one in the north-central portion (Figure A-2). However, wetland presence based only on NWI maps cannot be assumed to be an accurate assessment of potentially occurring jurisdictional wetlands. Wetland identification criteria differ between the USFWS and the USACE. As a result, wetlands shown on a NWI map may not be under the jurisdiction of the USACE, and all USACE-jurisdictional wetlands are not always included on NWI maps. As a result, a field visit was conducted to identify any wetlands or other waters of the U.S. that may be present.

The aerial photographs indicate the Survey Area consists largely of forested and unvegetated areas (Figure A-3). In addition, a maintained transmission line right-of-way (ROW) extends from east to west along the southern border of the Survey Area. Ponds are visible in the northeastern corner of the Survey Area.

The NRCS SSURGO digital data indicate that portions of seven soil map units are located on the Survey Area (Figure A-3). These are:

- Dekalb very channery loam, 1 to 6 percent slopes (DkB)
- Fitchville silt loam, 0 to 2 percent slopes (FcA)
- Haskins loam, 0 to 2 percent slopes (HsA)
- Jimtown sandy loam, 0 to 2 percent slopes (JsA)
- Jimtown loam, 0 to 2 percent slopes (JtA)
- Oshtemo sandy loam, 2 to 6 percent slopes (OtB)
- Quarries (Qu)



Of these seven soil map units, Haskins loam and Fitchville silt loam are included on the local and national hydric soils lists.

#### Wetland Delineation

Gordon Shaw, senior wetland specialist with Burns & McDonnell, conducted a wetland delineation of the Survey Area in July 2012. The land cover and delineated wetlands and streams are discussed in detail below.

*Vegetation.* The Survey Area was largely composed of forested areas and maintained ROW. Vegetation in the forested areas was dominated by sugar maple (*Acer saccharum*), eastern cottonwood (*Populus deltoides*), red maple (*Acer rubrum*), and eastern poison ivy (*Toxicodendron radicans*). Vegetation in the maintained ROW included species such as bluegrass (*Poa* spp.), common reed (*Phragmites australis*), eastern poison ivy, and Queen-Anne's lace (*Daucus carota*).

*Soils*. Typical upland soils were very dark gray (10YR 3/1) or very dark grayish brown (10YR 3/2) in color and silt loam in texture. Typical wetland soils were dark grayish brown (10YR 4/2) in color and silt loam in texture. Redoximorphic features were present in wetland soils but were uncommon in upland soils.

*Hydrology*. The primary source of hydrology for the wetlands was precipitation. Common indicators of hydrology within the wetlands included the presence of saturation within the upper 12 inches, a concave geomorphic position, and a positive FAC-neutral test.

#### **Jurisdictional Wetland Areas**

Eight wetlands and no streams were identified during the wetland delineation (Photographs C-1 through C-21). The wetlands are described below and their locations are shown on Figure A-4, Appendix A. Table 1 provides the type, size, and preliminary ORAM category of each wetland delineated. Sample plots were located in the wetlands and adjacent uplands. Data Forms for these sample plots are included in Appendix B.

*Wetland 1 (W-1).* Wetland 1 (1.71 acres) is a PUB wetland with a palustrine scrub-shrub (PSS)/palustrine emergent (PEM) wetland fringe located in the northeastern portion of the Survey Area (Figure A-4; Photographs C-3 and C-18). The PUB portion of this wetland encompasses 1.60 acres while the PSS/PEM portion encompasses 0.09/0.02 acre. The wetland is located in an area that was excavated during quarry operations. An approximately 6-foot-wide berm of fill material bisected the PUB wetland (Figure A-4). While vegetation was largely absent from the PUB portion of this wetland, vegetation in the PSS portion was dominated by sandbar willow (*Salix interior*), purple loosestrife (*Lythrum salicaria*), and white grass (*Leersia*)



*virginica*). Hydrophytic vegetation was indicated by the rapid test for Hydrophytic Vegetation and the Dominance Test. Standing water was present throughout the PUB wetland. Wetland hydrology in the PSS portion of the wetland was indicated by the presence of a water table at 6 inches, saturation at the soil surface, oxidized rhizospheres on living roots, crayfish burrows, and a positive FAC-neutral test of hydrophytic vegetation. Hydric soil in the PSS was indicated by the presence of a depleted matrix (Hydric Soil Indicator F3). W-1 received a preliminary ORAM Category rating of 1.

Wetland Number	Wetland Type <sup>a</sup>	Acres of Wetland Delineated	Preliminary ORAM Category <sup>b</sup>
W-1	PUB/PSS/PEM	1.71	1
W-2	PUB/PSS/PEM	0.30	1
W-3	PUB	0.03	1
W-4	PEM	0.08	1
W-5	PFO	0.14	2
W-6	PEM	0.63	1
W-8	PUB	0.05	1
W-9	PFO	0.18	1
	Total:	3.39	

Table 1: Type and Size of Delineated Wetlands within the Survey Area

(a) Symbols for wetland type: PEM = palustrine emergent, PFO = palustrine forested, PSS = palustrine scrub/shrub, PUB = palustrine unconsolidated bottom

(b) ORAM = Ohio Rapid Assessment Method

*Wetland 2 (W-2).* Wetland 2 (0.30 acre) is located in the north-central portion of the Survey Area (Figure A-4; Photographs C-5, C-7, and C-19). W-2 is a wetland complex consisting of 0.2-acre PUB wetland, 0.09-acre PSS wetland, and 0.03-acre PEM wetland. The PUB wetland is located in an area that was excavated during quarry operations. Vegetation in the PSS wetland was dominated by black willow (*Salix nigra*) and reed canary grass (*Phalaris arundinacae*), and vegetation in the PEM portion was dominated by pinkweed (*Persicaria pensylvanica*), white grass, black willow, reed canary grass, and purple loosestrife. Wetland hydrology was indicated by standing water in the PUB and by soil saturation in the upper 10 inches in the wetland fringe. Hydric soil in the PSS and PEM wetland portions was indicated by the presence of a depleted matrix (Hydric Soil Indicator F3). W-2 received a preliminary ORAM Category rating of 1.



*Wetland 3 (W-3).* Wetland 3 (0.03 acre) is a PUB wetland located in the western portion of the Survey Area (Figure A-4; Photograph C-20). This wetland, located in an area that was excavated during quarry operations, is surrounded by mature trees, including sugar maple, tuliptree (*Liriodendron tulipifera*), northern red oak, and American beech (*Fagus grandifolia*). W-3 received a preliminary ORAM Category rating of 1.

*Wetland 4 (W-4).* Wetland 4 (0.08 acre) is a PEM wetland located in the southeastern portion of the Survey Area (Figure A-4; Photograph C-9). Vegetation in this wetland was dominated by common reed. Wetland hydrology was indicated by a concave geomorphic position and a positive FAC-neutral test of hydrophytic vegetation. Hydric soil was indicated by the presence of a depleted matrix (Hydric Soil Indicator F3). This wetland is located in the existing and maintained transmission line ROW. W-4 received a preliminary ORAM Category rating of 1.

*Wetland 5 (W-5).* Wetland 5 (0.14 acre) is a palustrine forested (PFO) wetland located in the southeastern portion of the Survey Area (Figure A-4; Photograph C-11). Vegetation in this wetland was dominated by eastern cottonwood, red maple, multiflora rose (*Rosa multiflora*), and northern red oak. As multiflora rose, a facultative upland species, is commonly found in wetland areas in this region, this species was not included in the dominance test for hydrophytic vegetation (see Section 5a of Problematic Hydrophytic Vegetation in the Regional Supplement). Primary indicators of wetland hydrology included the presence of water marks, water-stained leaves, and a sparsely vegetated concave surface. Hydric soil was indicated by the presence of a depleted matrix (Hydric Soil Indicator F3). W-5 received a preliminary ORAM Category rating of 2.

*Wetland 6 (W-6).* Wetland 6 (0.63 acre) is a PEM wetland located in the southwestern portion of the Survey Area (Figure A-4; Photograph C-12). Vegetation in this wetland was dominated by common reed, Simpler's joy (*Verbena hastata*), and glossy buckthorn (*Frangula alnus*). Wetland hydrology was indicated by the presence of oxidized rhizospheres on living roots, a concave geomorphic position, and a positive FAC-neutral test of hydrophytic vegetation. Hydric soil was indicated by the presence of a depleted matrix (Hydric Soil Indicator F3). W-6 received a preliminary ORAM Category rating of 1.

*Wetland 8 (W-8).* Wetland 8 (0.05 acre) is a PUB wetland located in the east-central portion of the Survey Area (Figure A-4; Photograph C-21). This wetland is located in an area that was excavated during quarry operations. This wetland is surrounded by forest with vegetation including eastern cottonwood, rough-leaf dogwood (*Cornus drummondii*), tall scouring-rush (*Equisetum hyemale*), eastern poison ivy, and creeping jenny (*Lysimachia nummularia*). W-8 received a preliminary ORAM Category rating of 1.



*Wetland 9 (W-9).* Wetland 9 (0.18 acre) is a PFO wetland located in the south-central portion of the Survey Area (Figure 4, Appendix I; Photographs C-16 and C-17, Appendix III). Vegetation in this wetland was dominated by eastern cottonwood and red maple. Wetland hydrology in this wetland was indicated by the presence of water marks and by a sparsely vegetated concave surface. Hydric soil was indicated by the presence of a depleted matrix (Hydric Soil Indicator F3). W-9 received a preliminary ORAM Category rating of 1.

#### SUMMARY

Burns & McDonnell conducted a wetland delineation of the Survey Area in July 2012 to identify wetlands and other waters of the U.S. Eight wetlands and no streams were identified. Seven wetlands received preliminary ORAM Category ratings of 1, and one wetland received a preliminary rating of 2. To avoid the need for a Section 404 permit from the USACE, the Project should be designed to avoid all permanent impacts to wetlands and streams. If impacts cannot be completely avoided, wetland and stream impacts should be minimized and authorization under a Section 404 permit from the USACE will be required.

If you have any questions or require additional information, please contact Gordon Shaw by telephone at (816) 822-3581 or by e-mail at gwshaw@burnsmcd.com.

Sincerely,

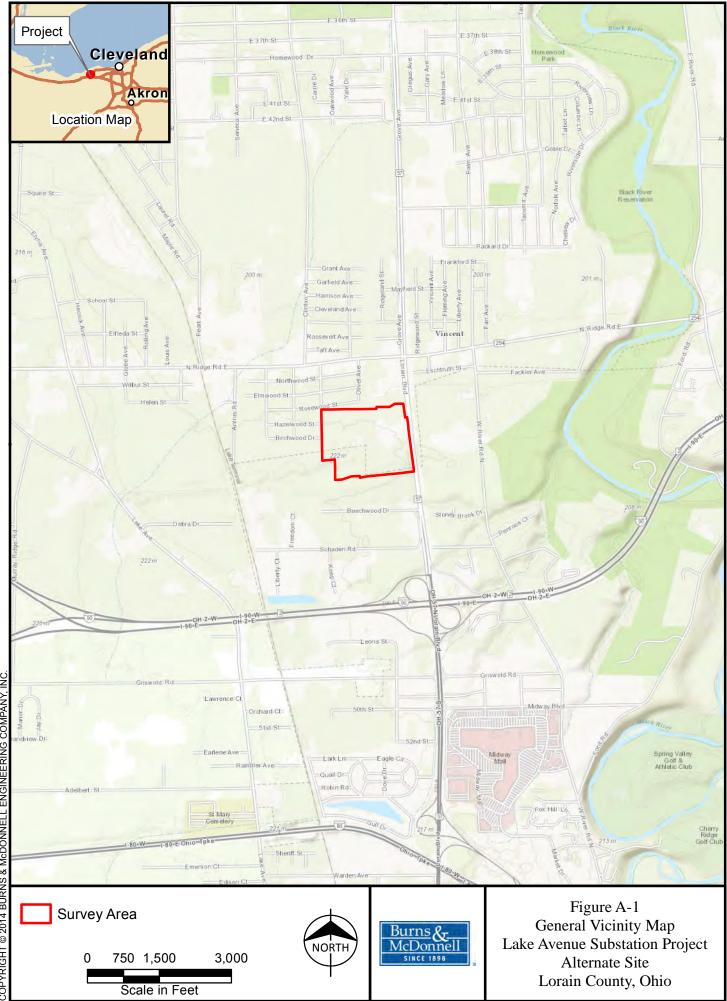
Gordon W. Shaw, PWS, ENV SP Senior Wetland Specialist

Attachments:

Appendix A - Figures
Appendix B - Wetland Determination Forms – NorthCentral and Northeast Region
Appendix C - Site Photographs
Appendix D - ORAM Summary and Characterization Worksheets

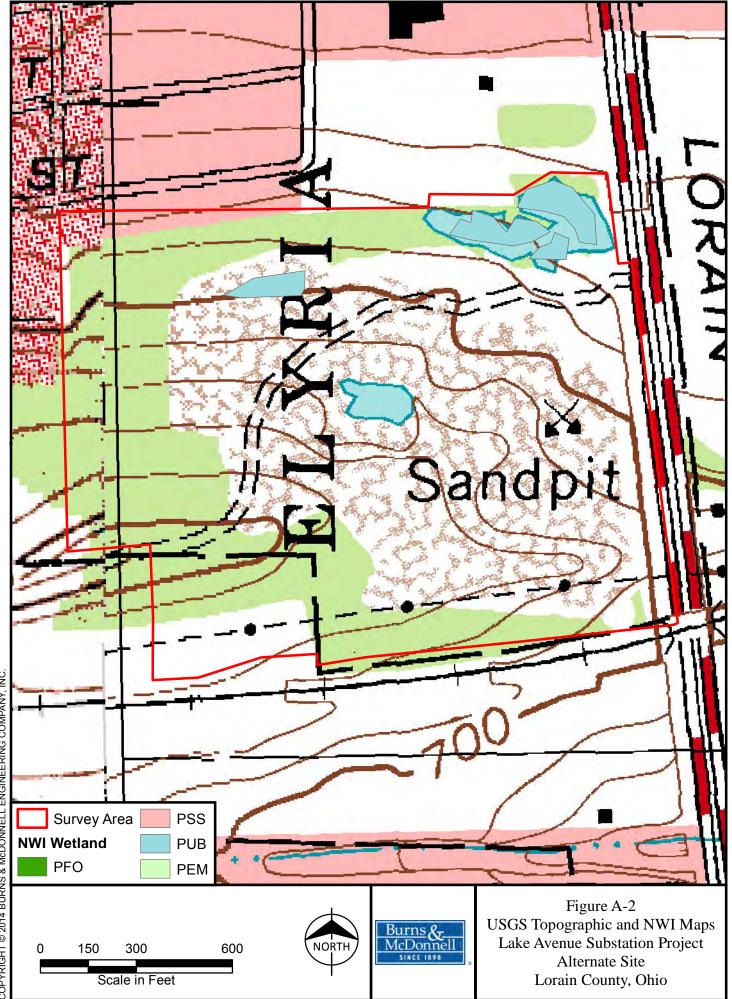
cc: Kristi Wise, Burns & McDonnell Rob Everard, Burns & McDonnell

**APPENDIX A - FIGURES** 



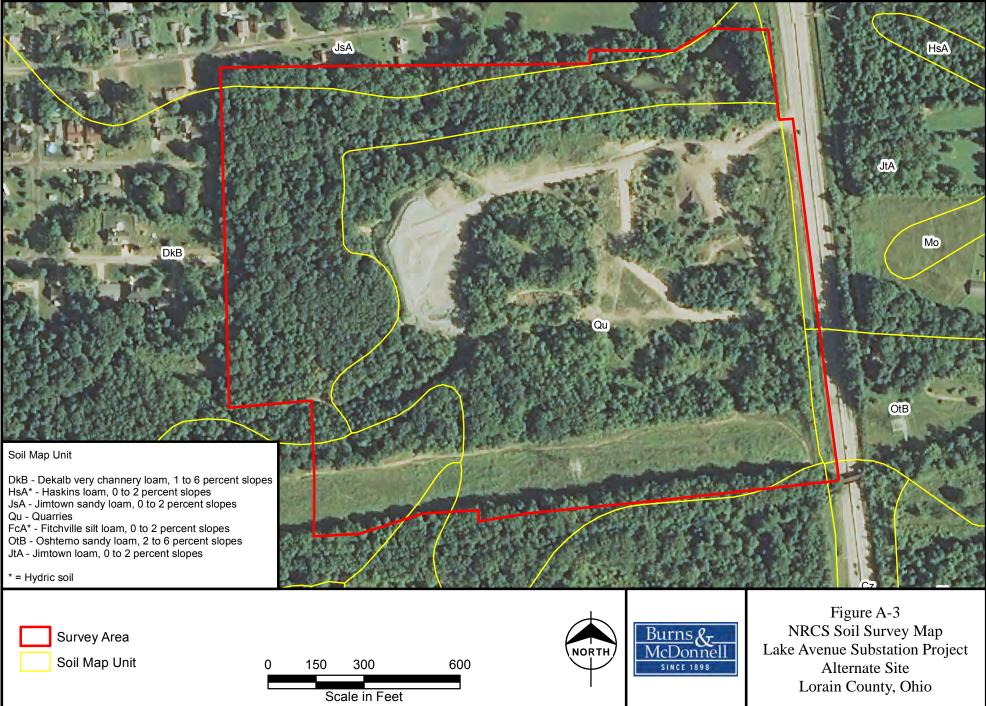
Path: R:\First Energy\65090\_Lake\_Avenue\_TLine\GIS\DataFiles\ArcDocs\Wetland\_Delineation\Fig1\_General\_Vicinity\_map\_LA\_Alternate\_2014.mxd\_gwshaw 12/23/2014 COPYRIGHT © 2014 BURNS & McDONNELL ENGINEERING COMPANY, INC.

Source: Esri, HERE, DeLorme, TomTom, Intermap, USGS, NPS, © OpenStreetMap



Source: USGS 1:24,000 Topographic Maps; USFWS NWI Maps; Lorain, OH (1980) and Avon, OH (1979) Quadrangles; and Burns & McDonnell

R:\First Energy\65090\_Lake\_Avenue\_TLine\GIS\DataFiles\ArcDocs\Wetland\_Delineation\Fig3\_aerial\_Soils\_LA\_Alternate.mxd August 24, 2012 COPYRIGHT © 2014 BURNS & McDONNELL ENGINEERING COMPANY, INC.



Source: USDA NAIP Aerial Photography for Lorain County, Ohio (2013) ; NRCS Soils (2011); Burns & McDonnell



Issued: 12/30/2014

## APPENDIX B - WETLAND DETERMINATION FORMS – NORTHCENTRAL AND NORTHEAST REGION

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Lake Avenue Sub	station Project		City/County:	Lorain County	Sampling Date: 7/10/2012		
Applicant/Owner: American Tra	Insmission Sys	tems, Inc.		State: 0	DH Sampling Point: SP-1		
Investigator(s): <u>G. Shaw</u> Section, Township, Range: <u>T6N, R17W</u>							
Landform (hillslope, terrace, etc.)	terrace		Local relief (conca	ave, convex, none):	Slope (%):		
Subregion (LRR or MLRA):	R	Lat: 41.4157	702 L	ong: -82.120376	Datum: NAD 83		
Soil Map Unit Name: Dekalb	very channery l	loam, 1 to 6 per	rcent slopes	NV	VI Classification: Upland		
Are climate/hydrologic conditions	on the site typi	cal for this time	of year? 🛛 🛛 Yes	□ No (If no,	explain in Remarks)		
Vege	tation Soil	Hydrology					
6 , -				nal Circumstances"   needed, explain any ans			
Naturally Problematic?			(11 11	leeded, explain any ans	sweis III Reilidiks)		
SUMMARY OF FINDINGS – A	ttach site ma	ap showing s	ampling point loc	ations, transects	s, important features, etc.		
	Ye	es No	Remarks: Soils are	highly disturbed fror	n quarry operations.		
Hydrophytic Vegetation Present?							
Hydric Soil Present?							
Wetland Hydrology Present?							
Is the Sampled Area within a W	etland?						
HYDROLOGY							
Wetland Hydrology Indicators:				Sec	condary Indicators (minimum of two required)		
Primary Indicators (minimum of o	<u>ne required; ch</u>	eck all that app	<u>oly)</u>		Surface Soil Cracks (B6)		
Surface Water (A1)		U Water-Stair	ned Leaves (B9)		Drainage Patterns (B10)		
High Water Table (A2)		Aquatic Fai			Moss Trim Lines (B16)		
Saturation (A3)		Marl Depos	sits (B15)		Dry-Season Water Table (C2)		
Water Marks (B1)			Sulfide Odor (C1)		Crayfish Burrows (C8)		
Sediment Deposits (B2)			hizospheres on Living	g Roots (C3)	Saturation Visible on Aerial Imagery (C9)		
Drift Deposits (B3)			of Reduced Iron (C4)		Stunted or Stressed Plants (D1)		
☐ Algal Mat or Crust (B4)			n Reduction in Tilled S	Soils (C6)	Geomorphic Position (D2)		
Iron Deposits (B5)		Thin Muck			Shallow Aquitard (D3)		
Inundation Visible on Aerial Im	0 , ( )	Other (Expl	lain in Remarks)		Aicrotopographic Relief (D4)		
Sparsely Vegetated Concave	Surface (B8)		I	⊠ F	FAC-Neutral Test (D5)		
Field Observations:	Yes No	Depth (inches):	Describe Record inspections, etc.)		uge, monitoring well, aerial photos, previous		
Surface Water Present?		<u>(increa).</u>		, il avaliable.			
Water Table Present?							
Saturation Present?		0					
(includes capillary fringe)							
Wetland Hydrology Present?							
Remarks: Wetland hydrology ind	cators A3 and	D5 are present					

#### **VEGETATION – Use scientific names of plants**

Sampling Point: SP-1

		Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	(Plot size: <u>30'</u> )		Species?	Status	Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)
1		%			Total Number of Dominant
2		%			Species Across All Strata: 4 (B)
3					Percent of Dominant Species
		%			that are OBL, FACW, or FAC: 100% (A/B
5 6				·	
7		%			Prevalence Index worksheet:
			= Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum	(Plot size: <u>15'</u> )				OBL species% x 1 =0
	(FIOL SIZE. <u>15</u> )				FACW species% x 2 =0
1. Salix interior			<u>Y</u>	FACW	FAC species% x 3 =0
				OBL	FACU species % x 4 = 0
3					
4		%		·	UPL species% x 5 =
5		%			Column Totals: <u>0</u> % (A) <u>0</u> (B)
6		%			Prevalence Index = B/A =
7					
		/0 %	= Total Cover	•	Hydrophytic Vegetation Indicators:
					Tydrophytic vegetation indicators.
Herb Stratum	(Plot size: <u>5'</u> )				☐ 1 - Rapid Test for Hydrophytic Vegetation
	(Plot size: <u>5'</u> )	40 %	Y	OBL	
			Y Y	OBL OBL	<ul> <li>☑ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> </ul>
1. Eleocharis obtusa		20 % %	Y	OBL	<ul> <li>☑ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> </ul>
1. <u>Eleocharis obtusa</u> 2. <u>Lythrum salicaria</u>		20 % %	Y	OBL	<ul> <li>☑ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☑ 4 - Morphological Adaptations<sup>1</sup> (Provide</li> </ul>
<ol> <li>Eleocharis obtusa</li> <li>Lythrum salicaria</li> <li>.</li> </ol>		20 % % %	Y		<ul> <li>☑ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> </ul>
1.       Eleocharis obtusa         2.       Lythrum salicaria         3.		20 % % % %	Y	OBL	<ul> <li>☑ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☑ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate</li> </ul>
1.       Eleocharis obtusa         2.       Lythrum salicaria         3.		20 % % % % %	Y	OBL	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>□ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> </ul>
Eleocharis obtusa         2.       Lythrum salicaria         3.		20 % % % % %	Y		<ul> <li>☐ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☐ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> </ul>
Eleocharis obtusa         2.       Lythrum salicaria         3.		20 % % % % % %	Y	OBL	<ul> <li>☐ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☐ 2 - Dominance Test is &gt;50%</li> <li>☐ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> </ul>
1.       Eleocharis obtusa         2.       Lythrum salicaria         3.		20 % % % % % %	Y	OBL	<ul> <li>☑ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☑ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>☑ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be</li> </ul>
1.       Eleocharis obtusa         2.       Lythrum salicaria         3.		20 % % % % % % %	Y	OBL	<ul> <li>☐ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☐ 2 - Dominance Test is &gt;50%</li> <li>☐ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in</li> </ul>
1.       Eleocharis obtusa         2.       Lythrum salicaria         3.		20 % % % % % % % %	Y		<ul> <li>☐ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☐ 2 - Dominance Test is &gt;50%</li> <li>☐ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> </ul>
1.       Eleocharis obtusa         2.       Lythrum salicaria         3.		20 % % % % % % % %	Y		<ul> <li>☐ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☐ 2 - Dominance Test is &gt;50%</li> <li>☐ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in</li> </ul>
1.       Eleocharis obtusa         2.       Lythrum salicaria         3.	(Plot size: <u>30'</u> )	20 % % % % % % % % % 60 %	Y		<ul> <li>☐ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☐ 2 - Dominance Test is &gt;50%</li> <li>☐ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> <li>Sapling/Shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</li> </ul>
1.       Eleocharis obtusa         2.       Lythrum salicaria         3.	(Plot size: <u>30'</u> )	20 % % % % % % % 60 %	Y		<ul> <li>I - Rapid Test for Hydrophytic Vegetation</li> <li>2 - Dominance Test is &gt;50%</li> <li>3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> <li>Sapling/Shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody) plants, regardless</li> </ul>
1.       Eleocharis obtusa         2.       Lythrum salicaria         3.	(Plot size: <u>30'</u> )	20 % % % % % % % % 60 %	Y		<ul> <li>I - Rapid Test for Hydrophytic Vegetation</li> <li>2 - Dominance Test is &gt;50%</li> <li>3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> <li>Sapling/Shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</li> </ul>
1.       Eleocharis obtusa         2.       Lythrum salicaria         3.	(Plot size: <u>30'</u> )	20 % % % % % % % % % 60 %	Y		<ul> <li>I - Rapid Test for Hydrophytic Vegetation</li> <li>2 - Dominance Test is &gt;50%</li> <li>3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> <li>Sapling/Shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</li> <li>Woody vine – All woody vines greater than 3.28 ft in</li> </ul>
2.       Lythrum salicaria         3.	(Plot size: <u>30'</u> )	20 % % % % % % % % 60 % %	Y		<ul> <li>I - Rapid Test for Hydrophytic Vegetation</li> <li>2 - Dominance Test is &gt;50%</li> <li>3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> <li>Sapling/Shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</li> </ul>

Remarks (include photo numbers here or on a separate sheet): Photograph C-1

SOIL							Sampling Point: <u>SP-1</u>	1
Profile Descr	iption: (Describe to	the dep	oth needed to doc	ument the	indicator or	confirm t	he absence of indicators.)	
Depth	Matrix			Redox Fea			-	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	10YR 5/3	100					Sand	
					·			
				<u> </u>				
·				<u> </u>				
								·
	·							
<sup>1</sup> Type: C=Co	ncentration, D=Deplet	ion, RM	=Reduced Matrix, N	NS=Maske	ed Sand Grair	IS	<sup>2</sup> Location: PL=Pore Linir	ng, M=Matrix
Hydric Soil Ir	ndicators:						Indicators for Problematic Hyd	dric Soils <sup>3</sup> :
Histosol (A	(1)		Dark Surface (S	67) ( <b>LRR R</b>	, MLRA 149	3)	2 cm Muck (A10) (LRR K, L,	MLRA 149B)
Histic Epip	edon (A2)		Polyvalue Belov	v Surface	(S8) ( <b>MLRA</b> 1	47, 148)	Coast Prairie Redox (A16) (L	<b>_RR K, L, R</b> )
Black Histi	c (A3)		Thin Dark Surfa	ice (S9) (L	RR R, MLRA	149B)	5 cm Mucky Peat or Peat (S	3) ( <b>LRR K, L, R</b> )
Hydrogen	Sulfide (A4)		Loamy Mucky M	/lineral (F1	) (LRR K, L)		Dark Surface (S7) (LRR K, L	_)
Stratified L	ayers (A5)		Loamy Gleyed I	Matrix (F2)			Polyvalue Below Surface (S8	3) ( <b>LRR, K, L</b> )
Depleted E	Below Dark Surface (A	.11)	Depleted Matrix	: (F3)			Thin Dark Surface (S9) (LRR	R, K, L)
Thick Dark	Surface (A12)		Redox Dark Sui	rface (F6)			Iron-Manganese Masses (F1	2) (LRR, K, L)
	cky Mineral (S1)		Depleted Dark S	Surface (F	7)		Piedmont Floodplain Soils (F	
-	yed Matrix (S4)		Redox Depress	ions (F8)			Mesic Spodic (TA6) (MLRA	144A, 145, 149B)
Sandy Red							Red Parent Material (F21)	
Stripped N	latrix (S6)						Very Shallow Dark Surface (	TF12)
3							Other (Explain in Remarks)	
	hydrophytic vegetation	n and we	etland hydrology m	ust be pres	sent, unless c	isturbed or		
	ayer (if observed):		Denth (in the co				Hydric Soil Present?	
Type: Be	edrock	-	Depth (inches)	: 4			□ Yes 🖾 No	
Remarks: N	o hydric soil indicators	s are pre	esent. Soils in this lo	ocation are	e highly distur	bed from q	uarry operations.	

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Lake Avenue Sub	station Project		City/County:	Lorain County	Sampling Date: 7/10/2012
Applicant/Owner: American Tra	ansmission Sys	tems, Inc.		State: OH	Sampling Point: SP-2
Investigator(s): G. Shaw			Sectio	n, Township, Range:	T6N, R17W
Landform (hillslope, terrace, etc.)	hillslope		Local relief (cond	cave, convex, none): <u>r</u>	one Slope (%): <u>5</u>
Subregion (LRR or MLRA): LRI	RR	Lat: 41.4158	322	Long: <u>-82.120751</u>	Datum: NAD 83
Soil Map Unit Name: Jimtown	sandy loam, 0	to 2 percent sl	opes	NWI	Classification: Upland
Are climate/hydrologic conditions	on the site typi	ical for this time	e of year? 🛛 🛛 Ye	s 🗌 No (If no, ex	plain in Remarks)
Vege	tation Soil	Hydrology			
5 , -				mal Circumstances" pre	
Naturally Problematic?			(11	needed, explain any answe	rs in Remarks)
SUMMARY OF FINDINGS - A	ttach site ma	ap showing s	ampling point lo	cations, transects, i	mportant features, etc.
	Ye	es No	Remarks:		
Hydrophytic Vegetation Present?					
Hydric Soil Present?					
Wetland Hydrology Present?		- —			
Is the Sampled Area within a W	etland?				
HYDROLOGY					
Wetland Hydrology Indicators:				<u>Secon</u>	dary Indicators (minimum of two required)
Primary Indicators (minimum of or	ne required; ch	eck all that app	<u>oly)</u>	🗌 Sur	face Soil Cracks (B6)
Surface Water (A1)		🗌 Water-Stai	ned Leaves (B9)	🗌 Dra	inage Patterns (B10)
High Water Table (A2)		Aquatic Fa	una (B13)	🗌 Mos	ss Trim Lines (B16)
Saturation (A3)		Marl Deposition	sits (B15)	Dry	-Season Water Table (C2)
Water Marks (B1)		Hydrogen :	Sulfide Odor (C1)	🗌 Cra	yfish Burrows (C8)
Sediment Deposits (B2)		Oxidized R	hizospheres on Livi	ng Roots (C3) 🛛 🗌 Sat	uration Visible on Aerial Imagery (C9)
Drift Deposits (B3)		Presence of	of Reduced Iron (C4	) 🗌 Stu	nted or Stressed Plants (D1)
☐ Algal Mat or Crust (B4)		Recent Iron	n Reduction in Tilled	Soils (C6) Geo	pmorphic Position (D2)
☐ Iron Deposits (B5)		Thin Muck		🗌 Sha	Illow Aquitard (D3)
Inundation Visible on Aerial Im	••••	Other (Exp	lain in Remarks)		rotopographic Relief (D4)
Sparsely Vegetated Concave	Surface (B8)			□ FAC	C-Neutral Test (D5)
Field Observations:	Yes No	Depth (inches):	Describe Recoring inspections, etc.		e, monitoring well, aerial photos, previous
Surface Water Present?		<u>(interfee)</u> .		.), ii available.	
Water Table Present?					
Saturation Present?					
(includes capillary fringe)					
Wetland Hydrology Present?					
Remarks: No wetland hydrology	indicators are p	present.			

#### **VEGETATION – Use scientific names of plants**

Sampling Point: SP-2

		Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (	(Plot size: <u>30'</u> )		Species?	Status	Number of Dominant Species that are OBL, FACW, or FAC:	2 (^)
1. Quercus rubra			<u> </u>	FACU		2 (A)
2. Acer saccharum		30 %		FACU	Total Number of Dominant Species Across All Strata:	5 (B)
3. Sassafras albidum		10 %	<u>N</u>	FACU		<u> </u>
4. Prunus serotina		5 %	<u>N</u>	FACU	Percent of Dominant Species that are OBL, FACW, or FAC:	40 (A/B)
5		%				<u> </u>
6		%			Prevalence Index worksheet:	
7		%		. <u> </u>	Total % Cover of:	Multiply by:
		95 % =	Total Cover			
Sapling/Shrub Stratum (	(Plot size: <u>15'</u> )					x 1 =
1. Sassafras albidum		30 %	Y	FACU	FACW species%	x 2 =
2 Drawna a creating		<b>F</b> 0/			FAC species%	x 3 =
					FACU species %	x 4 =
3 4		%				x 5 =
5		%			·	
6		%		·	Column Totals:%	(A) (B)
7		%			Prevalence Index = B/A =	
		35 % =	= Total Cover	,	Hydrophytic Vegetation Indic	ators:
Liesth Christian						
	(Plot size: <u>5'</u> )				1 - Rapid Test for Hydrophy	tic Vegetation
1		%			2 - Dominance Test is >50%	, D
2		%			☐ 3 - Prevalence Index is ≤3.0	1
3		%			4 - Morphological Adaptatio	ns <sup>1</sup> (Provide
4		%			supporting data in Remarks	
5		%			sheet)	
6						
		<u>%</u>			Problematic Hydrophytic Ve	getation <sup>1</sup> (Explain)
7		%			Problematic Hydrophytic Ve <sup>1</sup> Indicators of hydric soil and wetlan	-
8		<u>%</u> <u>%</u> <u>%</u>				d hydrology must be
8 9		<u>%</u> <u>%</u> <u>%</u>			<sup>1</sup> Indicators of hydric soil and wetlan present, unless disturbed or problem	d hydrology must be natic
8 9 10		% % % %			<sup>1</sup> Indicators of hydric soil and wetlan	d hydrology must be natic
8 9 10 11		- <u>%</u> - <u>%</u> - <u>%</u> - <u>%</u>			<sup>1</sup> Indicators of hydric soil and wetlan present, unless disturbed or problem <b>Definitions of Vegetation Stra</b> <b>Tree</b> – Woody plants 3 in. (7.6 cm	d hydrology must be natic tta:
8 9 10		- % - % - % - % - %			<sup>1</sup> Indicators of hydric soil and wetlan present, unless disturbed or problem Definitions of Vegetation Stra	d hydrology must be natic tta:
8.         9.         10.         11.         12.		- % - % - % - % - %			<sup>1</sup> Indicators of hydric soil and wetlan present, unless disturbed or problem <b>Definitions of Vegetation Stra</b> <b>Tree</b> – Woody plants 3 in. (7.6 cm	d hydrology must be natic natic n) or more in regardless of height. ess than 3 in. DBH
8.		- % - % - % - % - % - % - %			<sup>1</sup> Indicators of hydric soil and wetlan present, unless disturbed or problem <b>Definitions of Vegetation Stra</b> <b>Tree</b> – Woody plants 3 in. (7.6 cm diameter at breast height (DBH), <b>Sapling/Shrub</b> – Woody plants le and greater than 3.28 ft (1 m) tall.	d hydrology must be natic nta: n) or more in regardless of height. ess than 3 in. DBH
8.		- % - % - % - % - % - % - % - % - % - %	= Total Cover		<sup>1</sup> Indicators of hydric soil and wetlan present, unless disturbed or problem <b>Definitions of Vegetation Stra</b> <b>Tree</b> – Woody plants 3 in. (7.6 cm diameter at breast height (DBH), <b>Sapling/Shrub</b> – Woody plants le and greater than 3.28 ft (1 m) tall. <b>Herb</b> – All herbaceous (non-wood	d hydrology must be natic nta: n) or more in regardless of height. ess than 3 in. DBH dy) plants, regardless
8.		- % - % - % - % - % - % - % - % - % - %			<sup>1</sup> Indicators of hydric soil and wetlan present, unless disturbed or problem Definitions of Vegetation Stra Tree – Woody plants 3 in. (7.6 cm diameter at breast height (DBH), Sapling/Shrub – Woody plants le and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-wood of size, and woody plants less that	d hydrology must be natic nta: n) or more in regardless of height. ess than 3 in. DBH dy) plants, regardless an 3.28 ft tall.
8.		- % - % - % - % - % - % - % - %	= Total Cover		<sup>1</sup> Indicators of hydric soil and wetlan present, unless disturbed or problem Definitions of Vegetation Strat Tree – Woody plants 3 in. (7.6 cm diameter at breast height (DBH), Sapling/Shrub – Woody plants le and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-wood of size, and woody plants less that Woody vine – All woody vines gr	d hydrology must be natic nta: n) or more in regardless of height. ess than 3 in. DBH dy) plants, regardless an 3.28 ft tall.
8.		- % - % - % - % - % - % - % - %	= Total Cover		<sup>1</sup> Indicators of hydric soil and wetlan present, unless disturbed or problem Definitions of Vegetation Stra Tree – Woody plants 3 in. (7.6 cm diameter at breast height (DBH), Sapling/Shrub – Woody plants le and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-wood of size, and woody plants less that	d hydrology must be natic nta: n) or more in regardless of height. ess than 3 in. DBH dy) plants, regardless an 3.28 ft tall.

Remarks (include photo numbers here or on a separate sheet): Photograph C-2.

							Sampling Point: SP-2			
Profile Desc		to the d	-			r confirm	the absence of indicators.)			
Depth	Matrix			Redox Fea						
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks		
0-14	10YR 3/1	100					Silt Loam			
			_							
Type: C=Co	ncentration, D=Depl	letion, R	M=Reduced Matrix, M	1S=Maske	d Sand Grai	ns	<sup>2</sup> Location: PL=Pore Lining, N	I=Matrix		
lydric Soil I	ndicators:						Indicators for Problematic Hydric Soils <sup>3</sup> :			
Histosol (A	A1)		Dark Surface (S	7) ( <b>LRR R</b>	, MLRA 149	B)	2 cm Muck (A10) (LRR K, L, MLRA 149B)			
Histic Epip	bedon (A2)		Polyvalue Below			🗌 Coast Prairie Redox (A16) (LRR K, L, R)				
Black Hist			Thin Dark Surfac			5 cm Mucky Peat or Peat (S3) (L				
Hydrogen			Loamy Mucky M			Dark Surface (S7) (LRR K, L)				
Stratified I			Loamy Gleyed N	/latrix (F2)		Polyvalue Below Surface (S8) (LI	RR, K, L)			
	Below Dark Surface	(A11)	Depleted Matrix			Thin Dark Surface (S9) (LRR, K, L)				
	k Surface (A12)		Redox Dark Sur			☐ Iron-Manganese Masses (F12) (LRR, K, L)				
Sandy Mucky Mineral (S1)		Depleted Dark S	Surface (F7	7)	Piedmont Floodplain Soils (F19) (MLRA 1498					
Sandy Gleyed Matrix (S4)		Redox Depressi			Mesic Spodic (TA6) (MLRA 144A, 145, 149E					
□ Sandy Redox (S5)			· · ·		Red Parent Material (F21)					
Stripped Matrix (S6)						☐ Very Shallow Dark Surface (TF12)				
Stripped N						☐ Other (Explain in Remarks)				
Stripped N		ion and v	wetland hydrology mu	ist be pres	ent unless (	histurbed c				
	hydrophytic vegetat		irenana nyarenegy me				1			
<sup>3</sup> Indicators of	hydrophytic vegetat					Hydric Soil Present?				
<sup>3</sup> Indicators of Restrictive L	hydrophytic vegetat ayer (if observed):		Depth (inches):							

Project/Site: Lake Avenue Substation Project City/Co	unty: Lorain County Sampling Date: 7/10/2012
Applicant/Owner: _ American Transmission Systems, Inc.	State: OH Sampling Point: SP-3
Investigator(s): G. Shaw	Section, Township, Range: T6N, R17W
Landform (hillslope, terrace, etc.) depression Local relie	ef (concave, convex, none): <u>concave</u> Slope (%): <u>0</u>
Subregion (LRR or MLRA): LRR R Lat: 41.415438	Long: -82.12032 Datum: NAD 83
Soil Map Unit Name: Dekalb very channery loam, 1 to 6 percent slopes	NWI Classification: PSS (W-1)
Are climate/hydrologic conditions on the site typical for this time of year?	∑ Yes □ No (If no, explain in Remarks)
Vegetation Soil Hydrology	
	re "Normal Circumstances" present? 🛛 Yes 🗌 No
Naturally Problematic?	(If needed, explain any answers in Remarks)
SUMMARY OF FINDINGS – Attach site map showing sampling per	pint locations, transects, important features, etc.
Yes No Remarks:	
Hydrophytic Vegetation Present?	
Hydric Soil Present?	
Wetland Hydrology Present?	
Is the Sampled Area within a Wetland?	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	B9)
High Water Table (A2)	Moss Trim Lines (B16)
Saturation (A3)	Dry-Season Water Table (C2)
Water Marks (B1)   Hydrogen Sulfide Odor	
Sediment Deposits (B2)	
Drift Deposits (B3)	<u> </u>
Algal Mat or Crust (B4)	
□ Iron Deposits (B5) □ Thin Muck Surface (C7)	
□ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remain	
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
	Recorded Data (stream gauge, monitoring well, aerial photos, previous
Surface Water Present?	ons, etc.), if available:
Water Table Present?	
Saturation Present?	
(includes capillary fringe)	
Wetland Hydrology Present?	
Remarks: Wetland hydrology indicators A2, A3, C3, C8, and D5 are present	

Sampling Point: SP-3

		Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	(Plot size: <u>30'</u> )		Species?	Status	Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)
			<u> </u>		
2		%			Total Number of Dominant Species Across All Strata: 4 (B)
3		%			
4		%			Percent of Dominant Species that are OBL, FACW, or FAC: 100% (A/B)
5		%			
6		%_			Prevalence Index worksheet:
7		%			Total % Cover of: Multiply by:
		<u>    5 %    </u> =	Total Cover		
Sapling/Shrub Stratum	(Plot size: 15')				OBL species% x 1 =0
Saping/Shiub Stratum	(Plot size: <u>15'</u> )				FACW species% x 2 =0
				FACW	FAC species% x 3 =0
				OBL	
3		%			
4		%			UPL species% x 5 =0
5		%			Column Totals: <u>0</u> % (A) <u>0</u> (B)
6		%			Prevalence Index = B/A =
7		%			
		<b>a</b> = a(	<b>T</b> · · <b>O</b>		
		95 % =	= Total Cover		Hydrophytic Vegetation Indicators:
Herb Stratum	(Plot size: <u>5'</u> )	<u>95 %</u> =	= Total Cover		Hydrophytic Vegetation Indicators:
1 Luthrum colicorio					☑ 1 - Rapid Test for Hydrophytic Vegetation
1. Lythrum salicaria	(Plot size: <u>5'</u> )	60 %	<u> </u>	OBL	<ul> <li>☑ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> </ul>
			Y Y	OBL	☑ 1 - Rapid Test for Hydrophytic Vegetation
<ol> <li>Lythrum salicaria</li> <li>Leersia virginica</li> <li>Alisma subcordatum</li> </ol>		60 % 30 % 5 %	<u> </u>	OBL FACW	<ul> <li>☑ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☑ 4 - Morphological Adaptations<sup>1</sup> (Provide</li> </ul>
<ol> <li>Lythrum salicaria</li> <li>Leersia virginica</li> <li>Alisma subcordatum</li> <li></li> </ol>		60 % 30 % 5 % %	Y Y N	OBL FACW OBL	<ul> <li>☑ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> </ul>
1. Lythrum salicaria         2. Leersia virginica         3. Alisma subcordatum         4		60 % 30 % 5 % %	Y Y N	OBL FACW OBL	<ul> <li>☑ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☑ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> </ul>
1.       Lythrum salicaria         2.       Leersia virginica         3.       Alisma subcordatum         4.		60 % 30 % 5 % % %	Y Y N	OBL FACW OBL	<ul> <li>☑ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☑ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>☑ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> </ul>
1.       Lythrum salicaria         2.       Leersia virginica         3.       Alisma subcordatum         4.		60 % 30 % 5 % % %	Y Y N	OBL FACW OBL	<ul> <li>☑ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☑ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>☑ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be</li> </ul>
Lythrum salicaria           2.         Leersia virginica           3.         Alisma subcordatum           4.		60 % 30 % 5 % % % %	Y Y N	OBL FACW OBL	<ul> <li>☑ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☑ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>☑ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> </ul>
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Lythrum salicaria           2.         Leersia virginica           3.         Alisma subcordatum           4.		60 % 30 % 5 % % % % %	Y Y N	OBL FACW OBL	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>□ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in</li> </ul>
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1.       Lythrum salicaria         2.       Leersia virginica         3.       Alisma subcordatum         4.	(Plot size: <u>30'</u> )	60 % 30 % 5 % % % % % % % % 95 %	Y Y N	OBL FACW OBL	<ul> <li>I - Rapid Test for Hydrophytic Vegetation</li> <li>2 - Dominance Test is &gt;50%</li> <li>3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> <li>Sapling/Shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</li> </ul>
1.       Lythrum salicaria         2.       Leersia virginica         3.       Alisma subcordatum         4.	(Plot size: <u>30'</u> )	60 % 30 % 5 % % % % % % % 95 %	Y Y N	OBL FACW OBL	<ul> <li>I - Rapid Test for Hydrophytic Vegetation</li> <li>2 - Dominance Test is &gt;50%</li> <li>3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> <li>Sapling/Shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</li> </ul>
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Remarks (include photo numbers here or on a separate sheet): Photograph C-3.

Depth       Color (moist)       %         0-16       10YR 4/2       90         0-16       10YR 4/2       90         0.16       10YR 4/2       90         0.11       0.11       1         0.11       1       1         1       Type: C=Concentration, D=Depletion, R         Hydric Soil Indicators:       1         1       Histosol (A1)         1       Histic Epipedon (A2)         1       Black Histic (A3)         1       Hydrogen Sulfide (A4)         2       Stratified Layers (A5)         1       Depleted Below Dark Surface (A11)         1       Thick Dark Surface (A12)         2       Sandy Mucky Mineral (S1)         2       Sandy Redox (S5)         2       Stripped Matrix (S6)         3 <sup>1</sup> Indicators of hydrophytic vegetation and         Restrictive Layer (if observed):         Type:	Color (moist) 10YR 5/6 10YR 2/1 10YR 2/1 Color (moist) 10YR 2/1 Color (moist) 10YR 2/1 Color (moist) 10YR 2/1 Color (moist) Color	5 5 5 5 6 6 6 6 6 7 7 7 7 7 7 7 7 7 7 7	C P D P 	PL	Texture Silty clay Silty clay ation: PL=Pore Line for Problematic H ck (A10) (LRR K, rairie Redox (A16) cky Peat or Peat ( face (S7) (LRR K, e Below Surface ( k Surface (S9) (LF	ydric Soils <sup>3</sup> : L, MLRA 149B) (LRR K, L, R) S3) (LRR K, L, R) L) S8) (LRR, K, L) RR, K, L)
0-16       10YR 4/2       90         0-16       10YR 4/2       90         10YR 4/2       90         90       90         91       91         91       91 </td <td>10YR 5/6 10YR 2/1 10YR 2/1</td> <td>5 5 5 5 6 6 6 6 6 7 7 7 7 7 7 7 7 7 7 7</td> <td>C P D P </td> <td>PL</td> <td>Silty clay Silty clay ation: PL=Pore Lin for Problematic H ck (A10) (LRR K, rairie Redox (A16) cky Peat or Peat ( face (S7) (LRR K, e Below Surface (S9) (LF</td> <td>ning, M=Matrix ydric Soils<sup>3</sup>: L, MLRA 149B) (LRR K, L, R) S3) (LRR K, L, R) S3) (LRR K, L, R) S8) (LRR, K, L) S8, (LRR, K, L)</td>	10YR 5/6 10YR 2/1 10YR 2/1	5 5 5 5 6 6 6 6 6 7 7 7 7 7 7 7 7 7 7 7	C P D P 	PL	Silty clay Silty clay ation: PL=Pore Lin for Problematic H ck (A10) (LRR K, rairie Redox (A16) cky Peat or Peat ( face (S7) (LRR K, e Below Surface (S9) (LF	ning, M=Matrix ydric Soils <sup>3</sup> : L, MLRA 149B) (LRR K, L, R) S3) (LRR K, L, R) S3) (LRR K, L, R) S8) (LRR, K, L) S8, (LRR, K, L)
Hydric Soil Indicators:  Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)  Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type:	M=Reduced Matrix, MS Dark Surface (S7) Dark Surface (S7) Dolyvalue Below S Drhin Dark Surface Loamy Mucky Min Loamy Gleyed Ma Depleted Matrix (F Redox Dark Surface Depleted Dark Surface	S=Masked San (LRR R, MLI Surface (S8) ( e (S9) (LRR R heral (F1) (LR atrix (F2) F3) ce (F6) rface (F7)	nd Grains RA 149B) MLRA 147, 1 , MLRA 149E		or Problematic H ck (A10) (LRR K, rairie Redox (A16) cky Peat or Peat ( face (S7) (LRR K, e Below Surface ( k Surface (S9) (LF	ydric Soils <sup>3</sup> : L, MLRA 149B) (LRR K, L, R) S3) (LRR K, L, R) L) S8) (LRR, K, L) RR, K, L)
Hydric Soil Indicators:  Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)  Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type:	<ul> <li>Dark Surface (S7)</li> <li>Polyvalue Below S</li> <li>Thin Dark Surface</li> <li>Loamy Mucky Min</li> <li>Loamy Gleyed Ma</li> <li>Depleted Matrix (F</li> <li>Redox Dark Surface</li> <li>Depleted Dark Surface</li> </ul>	9 ( <b>LRR R, MLI</b> Surface (S8) (l e (S9) ( <b>LRR R</b> heral (F1) ( <b>LR</b> atrix (F2) F3) ce (F6) rface (F7)	RA 149B) MLRA 147, 1 , MLRA 149B	Indicators f           □         2 cm Mu           □         Coast Pr           B)         □         5 cm Mu           □         Dark Sur           □         Polyvalu           □         Thin Dar	or Problematic H ck (A10) (LRR K, rairie Redox (A16) cky Peat or Peat ( face (S7) (LRR K, e Below Surface ( k Surface (S9) (LF	ydric Soils <sup>3</sup> : L, MLRA 149B) (LRR K, L, R) S3) (LRR K, L, R) L) S8) (LRR, K, L) RR, K, L)
Hydric Soil Indicators:         Histosol (A1)         Histic Epipedon (A2)         Black Histic (A3)         Hydrogen Sulfide (A4)         Stratified Layers (A5)         Depleted Below Dark Surface (A11)         Thick Dark Surface (A12)         Sandy Mucky Mineral (S1)         Sandy Redox (S5)         Stripped Matrix (S6) <sup>3</sup> Indicators of hydrophytic vegetation and         Restrictive Layer (if observed):         Type:	<ul> <li>Dark Surface (S7)</li> <li>Polyvalue Below S</li> <li>Thin Dark Surface</li> <li>Loamy Mucky Min</li> <li>Loamy Gleyed Ma</li> <li>Depleted Matrix (F</li> <li>Redox Dark Surface</li> <li>Depleted Dark Surface</li> </ul>	9 ( <b>LRR R, MLI</b> Surface (S8) (l e (S9) ( <b>LRR R</b> heral (F1) ( <b>LR</b> atrix (F2) F3) ce (F6) rface (F7)	RA 149B) MLRA 147, 1 , MLRA 149B	Indicators f           □         2 cm Mu           □         Coast Pr           B)         □         5 cm Mu           □         Dark Sur           □         Polyvalu           □         Thin Dar	or Problematic H ck (A10) (LRR K, rairie Redox (A16) cky Peat or Peat ( face (S7) (LRR K, e Below Surface ( k Surface (S9) (LF	ydric Soils <sup>3</sup> : L, MLRA 149B) (LRR K, L, R) S3) (LRR K, L, R) L) S8) (LRR, K, L) RR, K, L)
Hydric Soil Indicators:         Histosol (A1)         Histic Epipedon (A2)         Black Histic (A3)         Hydrogen Sulfide (A4)         Stratified Layers (A5)         Depleted Below Dark Surface (A11)         Thick Dark Surface (A12)         Sandy Mucky Mineral (S1)         Sandy Redox (S5)         Stripped Matrix (S6) <sup>3</sup> Indicators of hydrophytic vegetation and         Restrictive Layer (if observed):         Type:	<ul> <li>Dark Surface (S7)</li> <li>Polyvalue Below S</li> <li>Thin Dark Surface</li> <li>Loamy Mucky Min</li> <li>Loamy Gleyed Ma</li> <li>Depleted Matrix (F</li> <li>Redox Dark Surface</li> <li>Depleted Dark Surface</li> </ul>	9 ( <b>LRR R, MLI</b> Surface (S8) (l e (S9) ( <b>LRR R</b> heral (F1) ( <b>LR</b> atrix (F2) F3) ce (F6) rface (F7)	RA 149B) MLRA 147, 1 , MLRA 149B	Indicators f           □         2 cm Mu           □         Coast Pr           B)         □         5 cm Mu           □         Dark Sur           □         Polyvalu           □         Thin Dar	or Problematic H ck (A10) (LRR K, rairie Redox (A16) cky Peat or Peat ( face (S7) (LRR K, e Below Surface ( k Surface (S9) (LF	ydric Soils <sup>3</sup> : L, MLRA 149B) (LRR K, L, R) S3) (LRR K, L, R) L) S8) (LRR, K, L) RR, K, L)
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Hydric Soil Indicators:  Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)  Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type:	<ul> <li>Dark Surface (S7)</li> <li>Polyvalue Below S</li> <li>Thin Dark Surface</li> <li>Loamy Mucky Min</li> <li>Loamy Gleyed Ma</li> <li>Depleted Matrix (F</li> <li>Redox Dark Surface</li> <li>Depleted Dark Surface</li> </ul>	9 ( <b>LRR R, MLI</b> Surface (S8) (l e (S9) ( <b>LRR R</b> heral (F1) ( <b>LR</b> atrix (F2) F3) ce (F6) rface (F7)	RA 149B) MLRA 147, 1 , MLRA 149B	Indicators f           □         2 cm Mu           □         Coast Pr           B)         □         5 cm Mu           □         Dark Sur           □         Polyvalu           □         Thin Dar	or Problematic H ck (A10) (LRR K, rairie Redox (A16) cky Peat or Peat ( face (S7) (LRR K, e Below Surface ( k Surface (S9) (LF	ydric Soils <sup>3</sup> : L, MLRA 149B) (LRR K, L, R) S3) (LRR K, L, R) L) S8) (LRR, K, L) RR, K, L)
Hydric Soil Indicators:  Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)  Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type:	<ul> <li>Dark Surface (S7)</li> <li>Polyvalue Below S</li> <li>Thin Dark Surface</li> <li>Loamy Mucky Min</li> <li>Loamy Gleyed Ma</li> <li>Depleted Matrix (F</li> <li>Redox Dark Surface</li> <li>Depleted Dark Surface</li> </ul>	9 ( <b>LRR R, MLI</b> Surface (S8) (l e (S9) ( <b>LRR R</b> heral (F1) ( <b>LR</b> atrix (F2) F3) ce (F6) rface (F7)	RA 149B) MLRA 147, 1 , MLRA 149B	Indicators f           □         2 cm Mu           □         Coast Pr           B)         □         5 cm Mu           □         Dark Sur           □         Polyvalu           □         Thin Dar	or Problematic H ck (A10) (LRR K, rairie Redox (A16) cky Peat or Peat ( face (S7) (LRR K, e Below Surface ( k Surface (S9) (LF	ydric Soils <sup>3</sup> : L, MLRA 149B) (LRR K, L, R) S3) (LRR K, L, R) L) S8) (LRR, K, L) RR, K, L)
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Hydric Soil Indicators:  Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)  Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type:	<ul> <li>Dark Surface (S7)</li> <li>Polyvalue Below S</li> <li>Thin Dark Surface</li> <li>Loamy Mucky Min</li> <li>Loamy Gleyed Ma</li> <li>Depleted Matrix (F</li> <li>Redox Dark Surface</li> <li>Depleted Dark Surface</li> </ul>	9 ( <b>LRR R, MLI</b> Surface (S8) (l e (S9) ( <b>LRR R</b> heral (F1) ( <b>LR</b> atrix (F2) F3) ce (F6) rface (F7)	RA 149B) MLRA 147, 1 , MLRA 149B	Indicators f           □         2 cm Mu           □         Coast Pr           B)         □         5 cm Mu           □         Dark Sur           □         Polyvalu           □         Thin Dar	or Problematic H ck (A10) (LRR K, rairie Redox (A16) cky Peat or Peat ( face (S7) (LRR K, e Below Surface ( k Surface (S9) (LF	ydric Soils <sup>3</sup> : L, MLRA 149B) (LRR K, L, R) S3) (LRR K, L, R) L) S8) (LRR, K, L) RR, K, L)
Hydric Soil Indicators:  Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)  Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type:	<ul> <li>Dark Surface (S7)</li> <li>Polyvalue Below S</li> <li>Thin Dark Surface</li> <li>Loamy Mucky Min</li> <li>Loamy Gleyed Ma</li> <li>Depleted Matrix (F</li> <li>Redox Dark Surface</li> <li>Depleted Dark Surface</li> </ul>	9 ( <b>LRR R, MLI</b> Surface (S8) (l e (S9) ( <b>LRR R</b> heral (F1) ( <b>LR</b> atrix (F2) F3) ce (F6) rface (F7)	RA 149B) MLRA 147, 1 , MLRA 149B	Indicators f           □         2 cm Mu           □         Coast Pr           B)         □         5 cm Mu           □         Dark Sur           □         Polyvalu           □         Thin Dar	or Problematic H ck (A10) (LRR K, rairie Redox (A16) cky Peat or Peat ( face (S7) (LRR K, e Below Surface ( k Surface (S9) (LF	ydric Soils <sup>3</sup> : L, MLRA 149B) (LRR K, L, R) S3) (LRR K, L, R) L) S8) (LRR, K, L) RR, K, L)
Hydric Soil Indicators:  Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)  Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type:	<ul> <li>Dark Surface (S7)</li> <li>Polyvalue Below S</li> <li>Thin Dark Surface</li> <li>Loamy Mucky Min</li> <li>Loamy Gleyed Ma</li> <li>Depleted Matrix (F</li> <li>Redox Dark Surface</li> <li>Depleted Dark Surface</li> </ul>	9 ( <b>LRR R, MLI</b> Surface (S8) (l e (S9) ( <b>LRR R</b> heral (F1) ( <b>LR</b> atrix (F2) F3) ce (F6) rface (F7)	RA 149B) MLRA 147, 1 , MLRA 149B	Indicators f           □         2 cm Mu           □         Coast Pr           B)         □         5 cm Mu           □         Dark Sur           □         Polyvalu           □         Thin Dar	or Problematic H ck (A10) (LRR K, rairie Redox (A16) cky Peat or Peat ( face (S7) (LRR K, e Below Surface ( k Surface (S9) (LF	ydric Soils <sup>3</sup> : L, MLRA 149B) (LRR K, L, R) S3) (LRR K, L, R) L) S8) (LRR, K, L) RR, K, L)
Hydric Soil Indicators:  Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)  Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type:	<ul> <li>Dark Surface (S7)</li> <li>Polyvalue Below S</li> <li>Thin Dark Surface</li> <li>Loamy Mucky Min</li> <li>Loamy Gleyed Ma</li> <li>Depleted Matrix (F</li> <li>Redox Dark Surface</li> <li>Depleted Dark Surface</li> </ul>	9 ( <b>LRR R, MLI</b> Surface (S8) (l e (S9) ( <b>LRR R</b> heral (F1) ( <b>LR</b> atrix (F2) F3) ce (F6) rface (F7)	RA 149B) MLRA 147, 1 , MLRA 149B	Indicators f           □         2 cm Mu           □         Coast Pr           B)         □         5 cm Mu           □         Dark Sur           □         Polyvalu           □         Thin Dar	or Problematic H ck (A10) (LRR K, rairie Redox (A16) cky Peat or Peat ( face (S7) (LRR K, e Below Surface ( k Surface (S9) (LF	ydric Soils <sup>3</sup> : L, MLRA 149B) (LRR K, L, R) S3) (LRR K, L, R) L) S8) (LRR, K, L) RR, K, L)
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)	<ul> <li>Polyvalue Below S</li> <li>Thin Dark Surface</li> <li>Loamy Mucky Min</li> <li>Loamy Gleyed Ma</li> <li>Depleted Matrix (F</li> <li>Redox Dark Surface</li> <li>Depleted Dark Surface</li> </ul>	Surface (S8) ( e (S9) ( <b>LRR R</b> heral (F1) ( <b>LR</b> htrix (F2) F3) ce (F6) rface (F7)	MLRA 147, 1 , MLRA 149E	☐ 2 cm Mu 148) ☐ Coast Pr B) ☐ 5 cm Mu ☐ Dark Sur ☐ Polyvalu ☐ Thin Dar	ck (A10) ( <b>LRR K,</b> rairie Redox (A16) cky Peat or Peat ( face (S7) ( <b>LRR K</b> , e Below Surface ( k Surface (S9) ( <b>LF</b>	L, MLRA 149B) (LRR K, L, R) S3) (LRR K, L, R) L) S8) (LRR, K, L) RR, K, L)
Histic Epipedon (A2) Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)  Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type:	<ul> <li>Polyvalue Below S</li> <li>Thin Dark Surface</li> <li>Loamy Mucky Min</li> <li>Loamy Gleyed Ma</li> <li>Depleted Matrix (F</li> <li>Redox Dark Surface</li> <li>Depleted Dark Surface</li> </ul>	Surface (S8) ( e (S9) ( <b>LRR R</b> heral (F1) ( <b>LR</b> htrix (F2) F3) ce (F6) rface (F7)	MLRA 147, 1 , MLRA 149E	I48) ☐ Coast Pr B) ☐ 5 cm Mu ☐ Dark Sur ☐ Polyvalu ☐ Thin Dar	airie Redox (A16) cky Peat or Peat ( face (S7) ( <b>LRR K</b> , e Below Surface ( k Surface (S9) ( <b>LF</b>	(LRR K, L, R) S3) (LRR K, L, R) L) S8) (LRR, K, L) RR, K, L)
Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)  Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type:	<ul> <li>Thin Dark Surface</li> <li>Loamy Mucky Min</li> <li>Loamy Gleyed Ma</li> <li>Depleted Matrix (F</li> <li>Redox Dark Surface</li> <li>Depleted Dark Surface</li> </ul>	e (S9) ( <b>LRR R</b> heral (F1) ( <b>LR</b> htrix (F2) =3) ce (F6) rface (F7)	, MLRA 149E	B) 5 cm Mu Dark Sur Polyvalu Thin Dar	cky Peat or Peat ( face (S7) ( <b>LRR K</b> , e Below Surface ( k Surface (S9) ( <b>LF</b>	S3) (LRR K, L, R) L) S8) (LRR, K, L) RR, K, L)
Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)  Restrictive Layer (if observed): Type:	<ul> <li>☐ Loamy Mucky Min</li> <li>☐ Loamy Gleyed Ma</li> <li>☑ Depleted Matrix (F</li> <li>☐ Redox Dark Surfact</li> <li>☐ Depleted Dark Surfact</li> </ul>	heral (F1) ( <b>LR</b> htrix (F2) F3) ce (F6) rface (F7)		☐ Dark Sur ☐ Polyvalu ☐ Thin Dar	face (S7) ( <b>LRR K</b> , e Below Surface ( k Surface (S9) ( <b>LF</b>	L) 58) (LRR, K, L) RR, K, L)
Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type:	<ul> <li>□ Loamy Gleyed Ma</li> <li>☑ Depleted Matrix (F</li> <li>□ Redox Dark Surfact</li> <li>□ Depleted Dark Surfact</li> </ul>	atrix (F2) <sup>-</sup> 3) ce (F6) rface (F7)	R K, L)	☐ Polyvalu ☐ Thin Dar	e Below Surface ( k Surface (S9) ( <b>LF</b>	58) ( <b>LRR, K, L</b> ) R <b>R, K, L</b> )
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type:	<ul> <li>Depleted Matrix (F</li> <li>Redox Dark Surfact</li> <li>Depleted Dark Surfact</li> </ul>	<sup>-</sup> 3) ce (F6) rface (F7)		Thin Dar	k Surface (S9) (LF	RR, K, L)
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type:	☐ Redox Dark Surfac	rface (F6)				
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)  Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type:	Depleted Dark Sur	rface (F7)		□ Iron-Mar		
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)  Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type:					iganese Masses (I	-12) ( <b>LRR, K, L</b> )
Sandy Redox (S5) Stripped Matrix (S6)  Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type:	Redox Depression			Piedmon	t Floodplain Soils	(F19) ( <b>MLRA 149B</b> )
Stripped Matrix (S6)  Indicators of hydrophytic vegetation and Restrictive Layer (if observed): Type:		1S (F8)		🗌 Mesic Sp	odic (TA6) ( <b>MLR</b>	A 144A, 145, 149B)
<sup>3</sup> Indicators of hydrophytic vegetation and <b>Restrictive Layer (if observed):</b> Type:				Red Pare	ent Material (F21)	
Restrictive Layer (if observed): Type:				🗌 Very Sha	allow Dark Surface	(TF12)
Restrictive Layer (if observed): Type:				Other (E	xplain in Remarks	)
Restrictive Layer (if observed): Type:	wetland hydrology must	t be present, i	unless disturb			
Туре:				Hydric Soil	Present?	
	Depth (inches):			⊠ Yes □		
<b>Remarks:</b> Hydric soil indicator F3 is pres	sent.					

Project/Site: Lake Avenue Subs	station Project		City/County:	Lorain County	Sampling	Date: 7/10/2012
Applicant/Owner: American Tra	nsmission Syst	tems, Inc.		State:	OH Samp	oling Point: SP-4
Investigator(s): G. Shaw			Section	n, Township, Ran	ge: T6N, R17W	
Landform (hillslope, terrace, etc.)	hillslope		Local relief (conc	ave, convex, non	e): convex	Slope (%): 2
Subregion (LRR or MLRA): LRF	۲R	Lat: 41.415		_ong: -82.1200	7 Datu	m: NAD 83
Soil Map Unit Name: Quarries					NWI Classification:	Upland
Are climate/hydrologic conditions	on the site typic	cal for this time	e of year? 🛛 🛛 Ye	s 🗌 No <i>(If</i>	no, explain in Remarks	;)
Vege	tation Soil	Hydrology	-			
Significantly Disturbed?		ĺ 🗆 Ű		mal Circumstance	• —	🗌 No
Naturally Problematic?			(If	needed, explain any	answers in Remarks)	
SUMMARY OF FINDINGS – At	tach site ma	p showing s	ampling point lo	cations, transe	cts, important featu	ures, etc.
	Ye	s No	Remarks: Soils are	highly disturbed	from quarry operations	
Hydrophytic Vegetation Present?						
Hydric Soil Present?						
Wetland Hydrology Present?						
Is the Sampled Area within a We	etland?					
HYDROLOGY						
Wetland Hydrology Indicators:					Secondary Indicators (	minimum of two required)
Primary Indicators (minimum of or	<u>ne required; che</u>	eck all that app	<u>oly)</u>		Surface Soil Cracks	(B6)
Surface Water (A1)		U Water-Stai	ned Leaves (B9)		Drainage Patterns (	310)
High Water Table (A2)		Aquatic Fa	una (B13)	l	☐ Moss Trim Lines (B1	6)
Saturation (A3)		Marl Depos	sits (B15)		Dry-Season Water T	able (C2)
Water Marks (B1)		Hydrogen S	Sulfide Odor (C1)		Crayfish Burrows (C	8)
Sediment Deposits (B2)		Oxidized R	hizospheres on Livir	ig Roots (C3)	Saturation Visible or	n Aerial Imagery (C9)
Drift Deposits (B3)		Presence of	of Reduced Iron (C4)		Stunted or Stressed	Plants (D1)
☐ Algal Mat or Crust (B4)		Recent Iro	n Reduction in Tilled	Soils (C6)	Geomorphic Position	ו (D2)
Iron Deposits (B5)		Thin Muck			Shallow Aquitard (D	3)
Inundation Visible on Aerial Im		Other (Exp	lain in Remarks)		Microtopographic Re	elief (D4)
Sparsely Vegetated Concave S	Surface (B8)				FAC-Neutral Test (D	15)
Field Observations:	Yes No	Depth (inches):	Describe Recordinspections, etc		gauge, monitoring well	, aerial photos, previous
Surface Water Present?		<u>(incres).</u>	inspections, etc	.), il avaliable.		
Water Table Present?						
Saturation Present?						
(includes capillary fringe)						
Wetland Hydrology Present?						
Remarks: No wetland hydrology i	ndicators are p	resent.				

Sampling Point: SP-4

		Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	(Plot size: <u>30'</u> )		Species?	Status	Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)
1. Robinia pseudoacacia			<u> </u>		
2. Populus deltoides			Y	FAC	Total Number of DominantSpecies Across All Strata:6 (B)
3					
4		<u>%</u>			Percent of Dominant Species that are OBL, FACW, or FAC: 50% (A/B)
5		%_			
6		%			Prevalence Index worksheet:
7					Total % Cover of: Multiply by:
		<u>    70 %   </u> =	= Total Cover		
Sapling/Shrub Stratum	(Plot size: <u>15'</u> )				OBL species         % x 1 =           FACW species         % x 2 =
1. Cornus drummondii		40 %	Y	FAC	· <u> </u>
			Ν		FAC species% x 3 =
			Ν		FACU species% x 4 =
4.					UPL species% x 5 =
5.		%			Column Totals:% (A)(B)
6		%			
7		%			Prevalence Index = B/A =
			= Total Cover		Hydrophytic Vegetation Indicators:
Herb Stratum	(Plot size: <u>5'</u> )				☐ 1 - Rapid Test for Hydrophytic Vegetation
1. Solidago altissima		40 %	Y	FACU	☐ 2 - Dominance Test is >50%
2. Toxicodendron radicans		30 %	Y	FAC	□ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
3. Poa pratensis		30 %	Y	FACU	
4. Parthenocissus quinquefolia		20 %	N		4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate
5. Rosa multiflora		15 %	N	FACU	sheet)
6. Festuca arundinacea		10 %	Ν	FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
7		%			<sup>1</sup> Indicators of hydric soil and wetland hydrology must be
8		<u>%</u>			present, unless disturbed or problematic
9		%			
10		%			Definitions of Vegetation Strata:
11		%			Tree – Woody plants 3 in. (7.6 cm) or more in
12		%			diameter at breast height (DBH), regardless of height.
		145 % =	= Total Cover		Sapling/Shrub – Woody plants less than 3 in. DBH
Woody Vine Stratum	(Plot size: <u>30'</u> )				and greater than 3.28 ft (1 m) tall.
1		%			Herb – All herbaceous (non-woody) plants, regardless
1 2		<u> </u>			of size, and woody plants less than 3.28 ft tall.
2 3		<u> </u>			Woody vine – All woody vines greater than 3.28 ft in
4.		<u> </u>			height.
••					
		% =	Total Cover		Hydrophytic Vegetation Present?  Yes No

Remarks (include photo numbers here or on a separate sheet): Photograph C-4.

SOIL							Sampling Point:SP-4	l .		
Profile Descr	ription: (Describe to	the de	pth needed to doc	ument the	indicator o	r confirm	the absence of indicators.)			
Depth	Matrix			Redox Fea	atures		_			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks		
0-2	10YR 3/2	100					Silt Loam			
. <u></u>										
				·						
				<u></u>						
<sup>1</sup> Type: C=Co	ncentration, D=Deplet	ion, RN		//S=Maske	d Sand Grai	ins	<sup>2</sup> Location: PL=Pore Linir	ng, M=Matrix		
Hydric Soil Ir			· · · · ·				Indicators for Problematic Hyd	-		
-						<b>B</b> )	2 cm Muck (A10) ( <b>LRR K, L</b> ,			
□ Histosol (A1)       □ Dark Surface (S7) (LRR R, MLRA 149B)         □ Histic Epipedon (A2)       □ Polyvalue Below Surface (S8) (MLRA 147, 148)							Coast Prairie Redox (A16) (LKK K, L,			
Black Histi			Thin Dark Surfa				5 cm Mucky Peat or Peat (S			
			Loamy Mucky M				$\Box$ Dark Surface (S7) (LRR K, L)			
Stratified L			Loamy Gleyed N				Polyvalue Below Surface (S8) (LRR, K, L)			
	Below Dark Surface (A	.11)	Depleted Matrix				Thin Dark Surface (S9) (LRR, K, L)			
	Surface (A12)	,	Redox Dark Sur				☐ Iron-Manganese Masses (F12) (LRR, K, L)			
	cky Mineral (S1)		Depleted Dark S	. ,	7)		Piedmont Floodplain Soils (F12) ( <b>LKR, R, E</b> )			
-	eyed Matrix (S4)		Redox Depressi		,		Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			
Sandy Red				( - )			□ Red Parent Material (F21)			
Stripped N	. ,						Very Shallow Dark Surface (TF12)			
	· · ·						Other (Explain in Remarks)			
<sup>3</sup> Indicators of	hydrophytic vegetation	n and w	etland hydrology mi	ust be pres	ent, unless	disturbed o				
Restrictive L	ayer (if observed):						Hydric Soil Present?			
Type: Ro	ock		Depth (inches)	: 2			🗌 Yes 🖾 No			
Remarks: N	o hydric soil indicators	are pr	esent, and soils in th	nis location	are highly c	disturbed.				

Project/Site: Lake Avenue Substatio	n Project	City/County: Lorain Count	y Sampling Date: 7/10/2012
Applicant/Owner: American Transmi	ssion Systems, Inc.	Sta	te: OH Sampling Point: SP-5
Investigator(s): <u>G. Shaw</u>		Section, Township, F	Range: T6N, R17W
Landform (hillslope, terrace, etc.)	pression	Local relief (concave, convex, r	none): <u>concave</u> Slope (%): <u>0</u>
Subregion (LRR or MLRA): LRR R	Lat: 41.415	i056Long:82.12	Datum: NAD 83
Soil Map Unit Name: Quarries			NWI Classification: PEM (W-2)
Are climate/hydrologic conditions on th	e site typical for this tim	e of year? 🛛 Yes 🗌 No	(If no, explain in Remarks)
Vegetation	n Soil Hydrology	1	
Significantly Disturbed?		Are "Normal Circumsta	nces" present? 🛛 Yes 🗌 No
Naturally Problematic?		(If needed, explain	any answers in Remarks)
SUMMARY OF FINDINGS – Attach	site map showing	sampling point locations, trar	sects, important features, etc.
	Yes No	Remarks: Soils are highly disturb	ed from quarry operations.
Hydrophytic Vegetation Present?			
Hydric Soil Present?			
Wetland Hydrology Present?			
Is the Sampled Area within a Wetlan	d? 🛛 🗌		
HYDROLOGY			
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one red	<u>quired; check all that ap</u>	<u>ply)</u>	Surface Soil Cracks (B6)
Surface Water (A1)	U Water-Sta	ined Leaves (B9)	Drainage Patterns (B10)
High Water Table (A2)	Aquatic F	auna (B13)	Moss Trim Lines (B16)
Saturation (A3)	🗌 Marl Depo	osits (B15)	Dry-Season Water Table (C2)
U Water Marks (B1)	🗌 Hydrogen	Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized	Rhizospheres on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence	of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Irc	on Reduction in Tilled Soils (C6)	Geomorphic Position (D2)
Iron Deposits (B5)	🗌 Thin Mucl	Surface (C7)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery	y (B7) Dther (Ex	olain in Remarks)	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface	ce (B8)		Kac-Neutral Test (D5)
Field Observations: Yes	Depth No (inches):	Describe Recorded Data (stre inspections, etc.), if available:	am gauge, monitoring well, aerial photos, previous
Surface Water Present?	$\boxtimes$	inspections, etc.), if available.	
Water Table Present?	⊠	-	
Saturation Present?		-	
(includes capillary fringe)		-	
Wetland Hydrology Present?			
Remarks: Wetland hydrology indicator	s A3 and D2 are preser	ht.	

Sampling Point: SP-5

		Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	(Plot size: <u>30'</u> )		Species?	Status	Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)
1		%_			
2					Total Number of DominantSpecies Across All Strata:2 (B)
3					, , ,
4					Percent of Dominant Species that are OBL, FACW, or FAC: 100% (A/B
5					
6		%			Prevalence Index worksheet:
7					Total % Cover of: Multiply by:
		0 % =	= Total Cove	r	OBL species % x 1 = 0
Sapling/Shrub Stratum	(Plot size: <u>15'</u> )				
1		%			FACW species% x 2 =0
1					FAC species% x 3 =0
2					FACU species% x 4 =0
4		%			UPL species% x 5 =
5.		%			
6		%			Column Totals: <u>0</u> % (A) <u>0</u> (B)
7.		%			Prevalence Index = B/A =
			= Total Cove		
				I	Hydrophytic Vegetation Indicators:
Herb Stratum	(Plot size: <u>5'</u> )			I	Hydrophytic Vegetation Indicators:     1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum 1 Persicaria pensylvanica	(Plot size: <u>5'</u> )		<u>Y</u>	FACW	
1. Persicaria pensylvanica	(Plot size: <u>5'</u> )	40 %	Y		<ul> <li>☐ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> </ul>
1. Persicaria pensylvanica 2. Leersia virginica		40 %	<u> </u>	FACW	<ul> <li>☐ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>⊠ 2 - Dominance Test is &gt;50%</li> <li>☐ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> </ul>
<ol> <li>Persicaria pensylvanica</li> <li>Leersia virginica</li> <li>Sium suave</li> </ol>		40 % 40 % 5 %	Y Y N	FACW FAC OBL	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide</li> </ul>
<ol> <li>Persicaria pensylvanica</li> <li>Leersia virginica</li> <li>Sium suave</li> <li>4.</li> </ol>		40 % 40 % 5 % %	Y Y N	FACW FAC OBL	<ul> <li>☐ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>⊠ 2 - Dominance Test is &gt;50%</li> <li>☐ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> </ul>
Persicaria pensylvanica         2.       Leersia virginica         3.       Sium suave         4.		40 % 40 % 5 % %	Y Y N	FACW FAC OBL	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> </ul>
Persicaria pensylvanica         2.       Leersia virginica         3.       Sium suave         4.		40 % 40 % 5 % % %	Y Y N	FACW FAC OBL	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>○ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> </ul>
Persicaria pensylvanica         2.       Leersia virginica         3.       Sium suave         4.		40 % 40 % 5 % % %	Y Y N	FACW FAC OBL	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> </ul>
Persicaria pensylvanica         2.       Leersia virginica         3.       Sium suave         4.		40 % 40 % 5 % % % % %	Y Y N	FACW FAC OBL	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>⊇ - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> </ul>
Persicaria pensylvanica         2.       Leersia virginica         3.       Sium suave         4.		40 % 40 % 5 % % % % %	Y Y N	FACW FAC OBL	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>○ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be</li> </ul>
Persicaria pensylvanica         2.       Leersia virginica         3.       Sium suave         4.		40 % 40 % 5 % % % % %	Y Y N	FACW FAC OBL	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>○ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> </ul>
Persicaria pensylvanica         2.       Leersia virginica         3.       Sium suave         4.		40 % 40 % 5 % % % % %	Y Y N	FACW FAC OBL	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>○ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in</li> </ul>
Persicaria pensylvanica         2.       Leersia virginica         3.       Sium suave         4.		40 % 40 % 5 % % % % % % %	Y Y N	FACW FAC OBL	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>□ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> </ul>
Persicaria pensylvanica         2.       Leersia virginica         3.       Sium suave         4.		40 % 40 % 5 % % % % % % %	Y Y N	FACW FAC OBL	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>○ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in</li> </ul>
Persicaria pensylvanica         2.       Leersia virginica         3.       Sium suave         4.	(Plot size: <u>30'</u> )	40 % 40 % 5 % % % % % % % % % % %	Y Y N	FACW FAC OBL	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>□ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> <li>Sapling/Shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</li> </ul>
Persicaria pensylvanica         2.       Leersia virginica         3.       Sium suave         4.	(Plot size: <u>30'</u> )	40 % 40 % 5 % % % % % % 85 %	Y Y N	FACW FAC OBL	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>□ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> <li>Sapling/Shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</li> </ul>
Persicaria pensylvanica         2.       Leersia virginica         3.       Sium suave         4.	(Plot size: <u>30'</u> )	40 % 40 % 5 % % % % % % % 85 % 85 %	Y Y N	FACW FAC OBL	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>□ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> <li>Sapling/Shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</li> </ul>
Persicaria pensylvanica         2.       Leersia virginica         3.       Sium suave         4.	(Plot size: <u>30'</u> )	40 % 40 % 5 % % % % % % % 85 % 85 %	Y Y N	FACW FAC OBL	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>□ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> <li>Sapling/Shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody) plants, regardless</li> </ul>
2.       Leersia virginica         3.       Sium suave         4.	(Plot size: <u>30'</u> )	40 % 40 % 5 % % % % % % % % % % % % % %	Y Y N	<u>FACW</u> <u>FAC</u> OBL	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>□ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> <li>Sapling/Shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</li> <li>Woody vine – All woody vines greater than 3.28 ft in</li> </ul>

Remarks (include photo numbers here or on a separate sheet): Photograph C-5.

Depth	Matrix		F	Redox Fea	atures		_	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-2	10YR 3/2	100	·				Silt loam	
2-4	10YR 4/2	95	10YR 5/6	5	C	M	Silt loam	
			·	. <u></u>	. <u></u>			
			·					
	ncentration, D=Deplet	ion BM	– I–Beduced Matrix, M		d Sand Grai	ns	<sup>2</sup> Location: PL=Pore Lining	n M–Matrix
Hydric Soil Ir						115	Indicators for Problematic Hydr	-
Histosol (A			Dark Surface (S7	7) ( <b>I RR R</b>	MI RA 149	B)	2 cm Muck (A10) (LRR K, L, I	
Histic Epip	,		□ Polyvalue Below				Coast Prairie Redox (A16) (L	
Black Histi			Thin Dark Surfac				5 cm Mucky Peat or Peat (S3)	
Hydrogen :	. ,		Loamy Mucky Mi				Dark Surface (S7) (LRR K, L)	(211111, 2, 11)
Stratified L			Loamy Gleyed M				□ Polyvalue Below Surface (S8)	(L <b>BB. K.</b> L)
	Below Dark Surface (A	(11)	Depleted Matrix				Thin Dark Surface (S9) (LRR,	
	Surface (A12)	,	Redox Dark Surf				☐ Iron-Manganese Masses (F12	
	cky Mineral (S1)		Depleted Dark S		7)		Piedmont Floodplain Soils (F1	
-	yed Matrix (S4)		Redox Depressio				Mesic Spodic (TA6) (MLRA 14	
Sandy Rec				, iio (i o)			□ Red Parent Material (F21)	
Stripped M							□ Very Shallow Dark Surface (T	F12)
							☐ Other (Explain in Remarks)	,
<sup>3</sup> Indicators of	hydrophytic vegetation	n and w	etland hydrology mu	st be pres	sent, unless d	disturbed o		
Restrictive La	ayer (if observed):						Hydric Soil Present?	
Type: Be	edrock		Depth (inches):	4			🛛 Yes 🔲 No	
Remarks: Hy	dric soil indicator F3 i	is prese	ent. Soils are highly o	disturbed f	from quarry o	operations.	I	

Project/Site: Lake Avenue Subs	ation Project		City/County:	Lorain County	Sampling D	Date: 7/10/2012
Applicant/Owner: American Trar	smission Syster	ms, Inc.		State:	OH Sampli	ing Point: SP-6
Investigator(s): G. Shaw			Section,	, Township, Ran	ge: <u>T6N, R17W</u>	
Landform (hillslope, terrace, etc.)	hillslope		Local relief (conca	ive, convex, non	e): <u>convex</u>	Slope (%): 2
Subregion (LRR or MLRA): LRR	R La	at: <u>41.415</u> 3	328 Lo	ong: <u>-82.1235</u>	)4 Datum	: NAD 83
Soil Map Unit Name: Dekalb lo	am, 3 to 8 perce	ent slopes			NWI Classification: U	pland
Are climate/hydrologic conditions c	n the site typical	I for this time	of year? 🛛 🖂 Yes	□ No (If	no, explain in Remarks)	
Veget	ation Soil	Hydrology				
Significantly Disturbed?				al Circumstance	•	🗌 No
Naturally Problematic?			(If n	eeded, explain any	answers in Remarks)	
SUMMARY OF FINDINGS – Att	ach site map	showing s	ampling point loc	ations, transe	cts, important featur	es, etc.
	Yes	No	Remarks: Soils are	highly disturbed	rom quarry operations.	
Hydrophytic Vegetation Present?		$\boxtimes$				
Hydric Soil Present?		$\boxtimes$				
Wetland Hydrology Present?		$\boxtimes$				
Is the Sampled Area within a We	tland?	$\boxtimes$				
HYDROLOGY						
Wetland Hydrology Indicators:					Secondary Indicators (m	inimum of two required)
Primary Indicators (minimum of on	<u>e required; chec</u>	k all that app	<u>oly)</u>		Surface Soil Cracks (E	36)
Surface Water (A1)		] Water-Stai	ned Leaves (B9)	l	Drainage Patterns (B1	10)
High Water Table (A2)		] Aquatic Fa	una (B13)		] Moss Trim Lines (B16	i)
Saturation (A3)		Marl Depos	sits (B15)		] Dry-Season Water Ta	ble (C2)
Water Marks (B1)		] Hydrogen S	Sulfide Odor (C1)	I	Crayfish Burrows (C8)	)
Sediment Deposits (B2)		Oxidized R	hizospheres on Living	g Roots (C3)	Saturation Visible on A	Aerial Imagery (C9)
Drift Deposits (B3)		Presence of	of Reduced Iron (C4)	l	Stunted or Stressed P	lants (D1)
Algal Mat or Crust (B4)		Recent Iror	n Reduction in Tilled S	Soils (C6)	Geomorphic Position	(D2)
Iron Deposits (B5)		Thin Muck	Surface (C7)		Shallow Aquitard (D3)	1
Inundation Visible on Aerial Ima	igery (B7)	] Other (Exp	lain in Remarks)	ļ	Microtopographic Reli	ef (D4)
Sparsely Vegetated Concave S	urface (B8)				FAC-Neutral Test (D5	)
Field Observations:	Yes No	Depth			gauge, monitoring well,	aerial photos, previous
Surface Water Present?		<u>(inches):</u>	inspections, etc.)	, if available:		
Water Table Present?						
Saturation Present?						
(includes capillary fringe)						
Wetland Hydrology Present?						
Remarks: No wetland hydrology in	dicators are pre-	sent.				

Sampling Point: SP-6

	-					
		Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum	(Plot size: <u>30'</u> )		Species?	Status	Number of Dominant Species that are OBL, FACW, or FAC:	2 (A)
1. Acer saccharum			Y	FACU		<u> </u>
			Y		Total Number of Dominant Species Across All Strata:	7 (B)
3. Fagus grandifolia		10 %		FACU		<u> </u>
4		%			Percent of Dominant Species that are OBL, FACW, or FAC:	29% (A/B)
5		%				(/10)
6					Prevalence Index worksheet:	
7		%			Total % Cover of:	Multiply by:
		<u>   110 %  </u> =	= Total Cover			
Sapling/Shrub Stratum	(Plot size: <u>15'</u> )				OBL species%	x 1 = <u>0</u>
	(1 101 3126. <u>13</u> )				FACW species%	x 2 = <u>0</u>
1. Acer saccharum			<u> </u>	FACU	FAC species %	x 3 = 0
					FACU species %	
3						
4		%		<u> </u>	UPL species%	
5		%		<u> </u>	Column Totals: 0%	(A) <u>0</u> (B)
6		%		·	Prevalence Index = B/A =	
7						
		50 % =	= Total Cover	•	Hydrophytic Vegetation Indicat	ors:
Herb Stratum	(Plot size: <u>5'</u> )				1 - Rapid Test for Hydrophytic	c Vegetation
1. Parthenocissus quinquefolia		20 %	Y	FACU	□ 2 - Dominance Test is >50%	
2. Trillium cernuum		5 %	Y	FAC	$\square$ 3 - Prevalence Index is $\leq 3.0^1$	
3		%			_	4
4		%			4 - Morphological Adaptations	
5		%			sheet)	on a separate
6					Problematic Hydrophytic Veg	etation <sup>1</sup> (Explain)
7		%				
8		%			<sup>1</sup> Indicators of hydric soil and wetland present, unless disturbed or problema	
9		%				
10		%			Definitions of Vegetation Strata	a:
11		0/			Tree – Woody plants 3 in. (7.6 cm)	or moro in
		%				
12					diameter at breast height (DBH), re	
12		%	= Total Cover		diameter at breast height (DBH), re	gardless of height.
		%			, , , , , , , , , , , , , , , , , , ,	gardless of height.
Woody Vine Stratum	(Plot size: <u>15'</u> )	%			diameter at breast height (DBH), re Sapling/Shrub – Woody plants les	gardless of height. s than 3 in. DBH
<u>Woody Vine Stratum</u> 1. <u>Vitis riparia</u>	(Plot size: <u>15'</u> )	<u>25 %</u> =	- Total Cove		diameter at breast height (DBH), re Sapling/Shrub – Woody plants les and greater than 3.28 ft (1 m) tall.	gardless of height. s than 3 in. DBH ) plants, regardless
<u>Woody Vine Stratum</u> 1. <u>Vitis riparia</u> 2	(Plot size: <u>15'</u> )	<u> </u>	- Total Cove		diameter at breast height (DBH), re Sapling/Shrub – Woody plants les and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody	gardless of height. s than 3 in. DBH ) plants, regardless 3.28 ft tall.
	(Plot size: <u>15'</u> )	<u>%</u> 25 % = <u>10 %</u>	- Total Cove		diameter at breast height (DBH), re <b>Sapling/Shrub</b> – Woody plants les and greater than 3.28 ft (1 m) tall. <b>Herb</b> – All herbaceous (non-woody of size, and woody plants less than	gardless of height. s than 3 in. DBH ) plants, regardless 3.28 ft tall.
Woody Vine Stratum         1.       Vitis riparia         2.         3.	(Plot size: <u>15'</u> )	<u> </u>	- Total Cove	FAC	diameter at breast height (DBH), re <b>Sapling/Shrub</b> – Woody plants les and greater than 3.28 ft (1 m) tall. <b>Herb</b> – All herbaceous (non-woody of size, and woody plants less than <b>Woody vine</b> – All woody vines greater <b>Woody vine</b> – All woody vines greater	gardless of height. s than 3 in. DBH ) plants, regardless 3.28 ft tall. ater than 3.28 ft in

Remarks (include photo numbers here or on a separate sheet): Photograph C-6.

SOIL							Sampling Point: <u>SP-</u>	6		
Profile Descr	iption: (Describe to	the dep	oth needed to docu	iment the	indicator o	r confirm t	he absence of indicators.)			
Depth	Matrix		I	Redox Fe			-			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks		
0-6	10YR 3/1	100					Silt Loam			
·				. <u> </u>	<u> </u>					
								·		
					. <u> </u>					
					·					
					·					
<sup>1</sup> Type: C=Co	ncentration, D=Deplet	ion. RM	=Reduced Matrix. N	1S=Maske	ed Sand Grai	ns	<sup>2</sup> Location: PL=Pore Lini	ng. M=Matrix		
Hydric Soil Ir							Indicators for Problematic Hy	-		
Histosol (A			Dark Surface (S	7) ( <b>I DD D</b>		B)	2 cm Muck (A10) (LRR K, L			
			Polyvalue Below				Coast Prairie Redox (A16) (			
Black Histi			Thin Dark Surfac				$\Box$ 5 cm Mucky Peat or Peat (S3) ( <b>LRR K, L, R</b> )			
			Loamy Mucky M				Dark Surface (S7) ( <b>LRR K, L</b> )			
Stratified L			Loamy Gleyed N				Polyvalue Below Surface (S			
	Below Dark Surface (A		Depleted Matrix				Thin Dark Surface (S9) (LRF	R, K, L)		
Thick Dark	Surface (A12)		Redox Dark Sur	face (F6)			Iron-Manganese Masses (F	12) ( <b>LRR, K, L</b> )		
Sandy Mu	cky Mineral (S1)		Depleted Dark S	Surface (F	7)		Piedmont Floodplain Soils (F	<sup>–</sup> 19) ( <b>MLRA 149B</b> )		
Sandy Gle	yed Matrix (S4)		Redox Depressi	ons (F8)			Mesic Spodic (TA6) (MLRA	144A, 145, 149B)		
Sandy Red	dox (S5)						Red Parent Material (F21)			
Stripped N	latrix (S6)						□ Very Shallow Dark Surface (TF12)			
•							Other (Explain in Remarks)			
	hydrophytic vegetation	n and w	etland hydrology mu	ist be pres	sent, unless o	disturbed o				
	ayer (if observed):		Death (inches)	0			Hydric Soil Present?			
	edrock		Depth (inches):				☐ Yes ⊠ No			
Remarks: N	o hydric soil indicators	s are pre	esent, and soils in th	is locatior	n are highly d	listurbed.				

Project/Site: Lake Avenue Subs	tation Project	City/County: L	orain County	Sampling Date: 7/11/2012
Applicant/Owner: American Tra	nsmission Systems, Inc.		State: OH	Sampling Point: SP-7
Investigator(s): G. Shaw		Section,	Township, Range: <u>T6N</u>	N, R17W
Landform (hillslope, terrace, etc.)	depression	Local relief (concav	ve, convex, none): <u>con</u>	cave Slope (%): _0
Subregion (LRR or MLRA): LRF	RR Lat: 41.4	14959 Lo	ng: <u>-82.122892</u>	Datum: NAD 83
Soil Map Unit Name: Quarries			NWI Cla	ssification: PSS (W-2)
Are climate/hydrologic conditions	on the site typical for this t	me of year? 🛛 🛛 Yes	🗌 No 🛛 (If no, expla	in in Remarks)
Veget	ation Soil Hydrold	gy		
Significantly Disturbed?			al Circumstances" preser	— —
Naturally Problematic?		(If ne	eded, explain any answers i	n Remarks)
SUMMARY OF FINDINGS – At	tach site map showin	g sampling point loca	tions, transects, imp	oortant features, etc.
	Yes No	Remarks: Soils are h	ighly disturbed from quar	ry operations.
Hydrophytic Vegetation Present?				
Hydric Soil Present?				
Wetland Hydrology Present?				
Is the Sampled Area within a We	etland?			
HYDROLOGY				
Wetland Hydrology Indicators:			<u>Secondar</u>	y Indicators (minimum of two required)
Primary Indicators (minimum of or	ne required; check all that	<u>apply)</u>	Surfac	e Soil Cracks (B6)
Surface Water (A1)	□ Water-S	tained Leaves (B9)	🗌 Draina	ge Patterns (B10)
High Water Table (A2)		Fauna (B13)	☐ Moss 1	Γrim Lines (B16)
Saturation (A3)		posits (B15)	🗌 Dry-Se	ason Water Table (C2)
Water Marks (B1)	, ,	en Sulfide Odor (C1)		sh Burrows (C8)
Sediment Deposits (B2)		d Rhizospheres on Living	· · · —	tion Visible on Aerial Imagery (C9)
Drift Deposits (B3)		e of Reduced Iron (C4)		d or Stressed Plants (D1)
Algal Mat or Crust (B4)		Iron Reduction in Tilled So		orphic Position (D2)
<ul> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Image</li> </ul>		ick Surface (C7)		w Aquitard (D3)
Sparsely Vegetated Concave S		Explain in Remarks)		opographic Relief (D4)
				eutral Test (D5)
Field Observations:	Yes No (inches):			nonitoring well, aerial photos, previous
Surface Water Present?				
Water Table Present?		—		
Saturation Present?	⊠ □ 10			
(includes capillary fringe)				
Wetland Hydrology Present?				
Remarks: Wetland hydrology indi	cators A3, D2, and D5 are	present.		

Sampling Point: SP-7

		Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum	(Plot size: <u>30'</u> )		Species?	Status	Number of Dominant Species that are OBL, FACW, or FAC: 3 (	A)
1						- Γ,
2		%			Total Number of DominantSpecies Across All Strata:3 (	B)
3		%			Percent of Dominant Species	,
45					that are OBL, FACW, or FAC:100% (	A/B)
5 6						
7.		%			Prevalence Index worksheet:	
			= Total Cover		Total % Cover of: Multiply by:	
					OBL species% x 1 =0	
Sapling/Shrub Stratum	(Plot size: <u>15'</u> )				FACW species % x 2 = 0	
1. Salix nigra		50 %	Y	OBL		
2		%				
3		%			FACU species% x 4 =0	
4		%			UPL species% x 5 =0	
5		%			Column Totals:0% (A)0	(B)
6		%			Prevalence Index = B/A =	
7		%				
7						
<i>I</i>		50 % =	= Total Cover		Hydrophytic Vegetation Indicators:	
Herb Stratum	(Plot size: <u>5'</u> )	50 %	= Total Cover		Hydrophytic Vegetation Indicators:	
		50 % =	= Total Cover	FACW		
Herb Stratum		<u> </u>	= Total Cover		<ul> <li>☑ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> </ul>	
<u>Herb Stratum</u> 1. <u>Phalaris arundinacea</u>		50 % 50 % 20 % 5 %	= Total Cover Y N	FACW OBL FACW	<ul> <li>☑ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> </ul>	
Herb Stratum 1. <u>Phalaris arundinacea</u> 2. <u>Lythrum salicaria</u> 3. <u>Lysimachia nummularia</u> 4.	(Plot size: <u>5'</u> )	50 % 50 % 20 % 5 % %	= Total Cover   	FACW OBL FACW	<ul> <li>☑ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> </ul>	
Herb Stratum         1.       Phalaris arundinacea         2.       Lythrum salicaria         3.       Lysimachia nummularia         4.	(Plot size: <u>5'</u> )	50 % 50 % 20 % 5 % %	= Total Cover <u>Y</u> <u>N</u> 	FACW OBL FACW	<ul> <li>☑ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☑ 4 - Morphological Adaptations<sup>1</sup> (Provide</li> </ul>	
Herb Stratum         1.       Phalaris arundinacea         2.       Lythrum salicaria         3.       Lysimachia nummularia         4.	(Plot size: <u>5'</u> )	50 % = 50 % 20 % 5 % % %	= Total Cover	FACW OBL FACW	<ul> <li>☑ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☑ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate</li> </ul>	n)
Herb Stratum         1.       Phalaris arundinacea         2.       Lythrum salicaria         3.       Lysimachia nummularia         4.	(Plot size: <u>5'</u> )	50 % 50 % 20 % 5 % % % %	= Total Cover Y N 	FACW OBL FACW	<ul> <li>☑ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☑ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> </ul>	
Herb Stratum         1.       Phalaris arundinacea         2.       Lythrum salicaria         3.       Lysimachia nummularia         4.	(Plot size: <u>5'</u> )	50 % 50 % 20 % 5 % % % %	= Total Cover	FACW OBL FACW	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>□ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain</li> </ul>	
Herb Stratum         1.       Phalaris arundinacea         2.       Lythrum salicaria         3.       Lysimachia nummularia         4.	(Plot size: <u>5'</u> )	50 % 50 % 20 % 5 % % % % %	= Total Cover	FACW OBL FACW	<ul> <li>☑ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☑ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>☑ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain <sup>1</sup> Indicators of hydric soil and wetland hydrology must present, unless disturbed or problematic</li> </ul>	
Herb Stratum         1.       Phalaris arundinacea         2.       Lythrum salicaria         3.       Lysimachia nummularia         4.	(Plot size: <u>5'</u> )	50 % 50 % 20 % 5 % % % % % %	= Total Cover	FACW OBL FACW	<ul> <li>☑ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☑ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>☑ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain <sup>1</sup> Indicators of hydric soil and wetland hydrology must present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> </ul>	
Herb Stratum         1.       Phalaris arundinacea         2.       Lythrum salicaria         3.       Lysimachia nummularia         4.	(Plot size: <u>5'</u> )	50 % 50 % 20 % 5 % % % % % % %	= Total Cover	FACW OBL FACW	<ul> <li>☑ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☑ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>☑ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain <sup>1</sup> Indicators of hydric soil and wetland hydrology must present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in</li> </ul>	be
Herb Stratum         1.       Phalaris arundinacea         2.       Lythrum salicaria         3.       Lysimachia nummularia         4.	(Plot size: <u>5'</u> )	50 % 50 % 20 % 5 % % % % % % %	= Total Cover	 OBL 	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>□ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain <sup>1</sup> Indicators of hydric soil and wetland hydrology must present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of heighted to the strate of the strate</li></ul>	be
Herb Stratum           1.         Phalaris arundinacea           2.         Lythrum salicaria           3.         Lysimachia nummularia           4.	(Plot size: <u>5'</u> )	50 % 50 % 20 % 5 % % % % % % %	= Total Cover	 OBL 	<ul> <li>☑ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☑ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>☑ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain <sup>1</sup> Indicators of hydric soil and wetland hydrology must present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in</li> </ul>	be
Herb Stratum         1.       Phalaris arundinacea         2.       Lythrum salicaria         3.       Lysimachia nummularia         4.	(Plot size: <u>5'</u> )	50 % 50 % 20 % 5 % % % % % % % % % 75 %	= Total Cover	 OBL 	<ul> <li>☑ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☑ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>☑ Problematic Hydrophytic Vegetation<sup>1</sup> (Explai <sup>1</sup> Indicators of hydric soil and wetland hydrology must present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of hei</li> <li>Sapling/Shrub – Woody plants less than 3 in. DB</li> </ul>	be ght. H
Herb Stratum         1.       Phalaris arundinacea         2.       Lythrum salicaria         3.       Lysimachia nummularia         4.	(Plot size: <u>5'</u> )	50 % 50 % 20 % 5 % % % % % % %	= Total Cover	 OBL 	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>□ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain <sup>1</sup> Indicators of hydric soil and wetland hydrology must present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height (DBH), regardless of height and greater than 3.28 ft (1 m) tall.</li> </ul>	be ght. H
Herb Stratum         1.       Phalaris arundinacea         2.       Lythrum salicaria         3.       Lysimachia nummularia         4.	(Plot size: <u>5'</u> )	50 % 50 % 20 % 5 % % % % % % % 75 %	= Total Cover	 OBL 	<ul> <li>☑ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☑ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>☑ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain <sup>1</sup> Indicators of hydric soil and wetland hydrology must present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height (DBH), regardless of height (DBH), regardless of height (PBH), regardle</li></ul>	be ght. H
Herb Stratum         1.       Phalaris arundinacea         2.       Lythrum salicaria         3.       Lysimachia nummularia         4.	(Plot size: <u>5'</u> )	50 % 50 % 20 % 5 % % % % % % % 75 % % %	= Total Cover	 OBL 	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>□ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain<sup>1</sup> Indicators of hydric soil and wetland hydrology must present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of heie</li> <li>Sapling/Shrub – Woody plants less than 3 in. DB and greater than 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody) plants, regard of size, and woody plants less than 3.28 ft tall.</li> </ul>	be ght. H

Remarks (include photo numbers here or on a separate sheet): Photograph C-7.

Profile Desc	ription: (Describe to t	he de	pth needed to docu	ment the	indicator o	r confirm t	the absence of indicators.)		
Depth	Matrix		F	Redox Fe	atures		_		
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-8	10YR 4/2	95	5YR 5/6	5	C	Μ	Silt loam		
8-16	10YR 4/2	95	5YR 5/6	5	C	Μ	Clay loam		
	·				·				
	·				·				
	·							<u> </u>	
					·				
					. <u> </u>				
<sup>1</sup> Type: C=Co	ncentration, D=Depletio	n, RM	I=Reduced Matrix, N	IS=Maske	ed Sand Graii	าร	<sup>2</sup> Location: PL=Pore Lining	, M=Matrix	
Hydric Soil I	ndicators:						Indicators for Problematic Hydri	ic Soils <sup>3</sup> :	
Histosol (A	<b>\</b> 1)		Dark Surface (S	7) ( <b>LRR R</b>	R, MLRA 149	B)	2 cm Muck (A10) (LRR K, L, N	ILRA 149B)	
Histic Epip	bedon (A2)		Polyvalue Below	Surface	(S8) ( <b>MLRA</b> <sup>2</sup>	147, 148)	Coast Prairie Redox (A16) (LR	R K, L, R)	
Black Hist	ic (A3)		Thin Dark Surfac	ce (S9) (L	RR R, MLRA	149B)	5 cm Mucky Peat or Peat (S3)	(LRR K, L, R)	
Hydrogen	Sulfide (A4)		Loamy Mucky M	ineral (F1	) (LRR K, L)		Dark Surface (S7) (LRR K, L)		
Stratified L	_ayers (A5)		Loamy Gleyed M	latrix (F2)	)		Polyvalue Below Surface (S8) (LRR, K, L)		
Depleted I	Below Dark Surface (A1	1)	Depleted Matrix	(F3)			Thin Dark Surface (S9) (LRR, K, L)		
Thick Dark	k Surface (A12)		Redox Dark Surf	face (F6)			Iron-Manganese Masses (F12) (LRR, K, L)		
🗌 Sandy Mu	cky Mineral (S1)		Depleted Dark S	urface (F	7)		Piedmont Floodplain Soils (F19) (MLRA 149B)		
Sandy Gle	eyed Matrix (S4)		Redox Depression	ons (F8)			Mesic Spodic (TA6) (MLRA 14	4A, 145, 149B)	
Sandy Re	dox (S5)						Red Parent Material (F21)		
Stripped N	/atrix (S6)						□ Very Shallow Dark Surface (TF	<sup>-</sup> 12)	
							Other (Explain in Remarks)		
<sup>3</sup> Indicators of	hydrophytic vegetation	and w	etland hydrology mu	ist be pres	sent, unless o	disturbed o	r problematic		
Restrictive L	ayer (if observed):						Hydric Soil Present?		
Туре:			Depth (inches):				🖾 Yes 🔲 No		
Remarks: H	ydric soil indicator F3 is	prese	nt.						

Project/Site: Lake Avenue Sub	station Project		City/County:	Lorain County		Sampling Date:	7/11/2012
Applicant/Owner: American Tra	Insmission Sys	tems, Inc.		State:	ОН	Sampling Po	int: <u>SP-8</u>
Investigator(s): G. Shaw			Section	n, Township, Rar	ige: T6N, R1	7W	
Landform (hillslope, terrace, etc.)	hillslope		Local relief (conc	ave, convex, nor	ne): none	Slope	(%): 0
Subregion (LRR or MLRA): LRI	RR	Lat: 41.4149	934 I	_ong: -82.1229	973	Datum: NA	AD 83
Soil Map Unit Name: Quarries	3				NWI Classific	ation: Upland	
Are climate/hydrologic conditions	on the site typi	cal for this time	e of year? 🛛 🛛 Yes	s 🗌 No (li	<sup>f</sup> no, explain in	Remarks)	
Vege	tation Soil	Hydrology					
				mal Circumstance	•	🛛 Yes 🗌 N	D
Naturally Problematic?			(If )	needed, explain an	y answers in Rer	marks)	
SUMMARY OF FINDINGS - A	ttach site ma	ap showing s	ampling point lo	cations, transe	ects, importa	ant features, e	tc.
	Ye	es No	Remarks: Soils are	highly disturbed	from quarry or	perations.	
Hydrophytic Vegetation Present?	$\triangleright$						
Hydric Soil Present?							
Wetland Hydrology Present?							
Is the Sampled Area within a W	etland?						
HYDROLOGY							
Wetland Hydrology Indicators:					Secondary Inc	licators (minimur	n of two required)
Primary Indicators (minimum of or	ne required; ch	eck all that app	<u>ply)</u>		Surface So	il Cracks (B6)	
Surface Water (A1)		U Water-Stai	ned Leaves (B9)		🗌 Drainage P	atterns (B10)	
High Water Table (A2)		Aquatic Fa	una (B13)		Moss Trim	Lines (B16)	
Saturation (A3)		Marl Depos			Dry-Seasor	n Water Table (C	2)
Water Marks (B1)			Sulfide Odor (C1)		🗌 Crayfish Bu	irrows (C8)	
Sediment Deposits (B2)			hizospheres on Livin		Saturation	Visible on Aerial	Imagery (C9)
Drift Deposits (B3)			of Reduced Iron (C4)		Stunted or	Stressed Plants	(D1)
☐ Algal Mat or Crust (B4)			n Reduction in Tilled	Soils (C6)	Geomorphi 🗌	c Position (D2)	
Iron Deposits (B5)		Thin Muck			Shallow Aq	. ,	
Inundation Visible on Aerial Im	,	☐ Other (Exp	lain in Remarks)			raphic Relief (D4	)
Sparsely Vegetated Concave	Surface (B8)				FAC-Neutra	al Test (D5)	
Field Observations:	Yes No	Depth (inches):	Describe Record inspections, etc.		n gauge, monito	oring well, aerial	photos, previous
Surface Water Present?		<u>(Incres).</u>	inspections, etc.	.), il avallable.			
Water Table Present?							
Saturation Present?							
(includes capillary fringe)							
Wetland Hydrology Present?							
Remarks: No wetland hydrology	indicators are p	present.					

Sampling Point: SP-8

		Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum	(Plot size: <u>30'</u> )	% Cover	Species?	Status	Number of Dominant Species	4 (4)
1. Robinia pseudoacacia			Y		that are OBL, FACW, or FAC:	<u>4</u> (A)
2. Populus deltoides			Y	FAC	Total Number of Dominant Species Across All Strata:	6 (P)
3		%			-	<u>6</u> (B)
4		%			Percent of Dominant Species that are OBL, FACW, or FAC:	67% (A/B)
5		%				<u> </u>
6		%_			Prevalence Index worksheet:	
7		%			Total % Cover of:	Aultiply by:
		80 % =	= Total Cover			
Sapling/Shrub Stratum	(Plot size: 15')				OBL species% x	
	·/	00.0/	N	540	FACW species% x	2 =
			Y		FAC species% x	3 =
2		%			FACU species% x	4 = 0
3		<u> </u>			UPL species% x	
4						
5		%			Column Totals: <u>0</u> % (A	A) <u>0</u> (B)
6 7					Prevalence Index = B/A =	
			= Total Cover			
					Hydrophytic Vegetation Indicato	is:
Herb Stratum	(Plot size: <u>5'</u> )				Hydrophytic Vegetation Indicato     1 - Rapid Test for Hydrophytic	
	(Plot size: <u>5'</u> )		<u>Y</u>			
1. <u>Toxicodendron radicans</u>	·/	25 % 15 %	Y Y	FAC FACU	<ul> <li>□ 1 - Rapid Test for Hydrophytic</li> <li>☑ 2 - Dominance Test is &gt;50%</li> </ul>	
1. <u>Toxicodendron radicans</u>	· _/	25 % 15 %	Y Y	FAC FACU	<ul> <li>☐ 1 - Rapid Test for Hydrophytic</li> <li>⊠ 2 - Dominance Test is &gt;50%</li> <li>☐ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> </ul>	Vegetation
<ol> <li><u>Toxicodendron radicans</u></li> <li><u>Rubus allegheniensis</u></li> </ol>		25 % 15 % 10 % 10 %	Y Y N N	FAC FACU FACU FACU	<ul> <li>☐ 1 - Rapid Test for Hydrophytic</li> <li>⊠ 2 - Dominance Test is &gt;50%</li> <li>☐ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☐ 4 - Morphological Adaptations<sup>1</sup></li> </ul>	Vegetation (Provide
<ol> <li>Toxicodendron radicans</li> <li>Rubus allegheniensis</li> <li>Solidago altissima</li> </ol>		25 % 15 % 10 % 10 % %	Y Y N N	FAC FACU FACU FACU	<ul> <li>☐ 1 - Rapid Test for Hydrophytic</li> <li>⊠ 2 - Dominance Test is &gt;50%</li> <li>☐ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> </ul>	Vegetation (Provide
<ol> <li><u>Toxicodendron radicans</u></li> <li><u>Rubus allegheniensis</u></li> <li><u>Solidago altissima</u></li> <li><u>Parthenocissus quinquefolia</u></li> </ol>		25 % 15 % 10 % 10 % %	Y Y N N	FAC FACU FACU FACU	<ul> <li>☐ 1 - Rapid Test for Hydrophytic</li> <li>⊠ 2 - Dominance Test is &gt;50%</li> <li>☐ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☐ 4 - Morphological Adaptations<sup>1</sup> supporting data in Remarks or data</li> </ul>	Vegetation (Provide on a separate
1.       Toxicodendron radicans         2.       Rubus allegheniensis         3.       Solidago altissima         4.       Parthenocissus quinquefolia         5.		25 % 15 % 10 % 10 % % %	Y Y N N	FAC FACU FACU FACU	<ul> <li>□ 1 - Rapid Test for Hydrophytic</li> <li>□ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> supporting data in Remarks or o sheet)</li> <li>□ Problematic Hydrophytic Veget</li> </ul>	Vegetation (Provide on a separate tation <sup>1</sup> (Explain)
1.       Toxicodendron radicans         2.       Rubus allegheniensis         3.       Solidago altissima         4.       Parthenocissus quinquefolia         5.		25 % 15 % 10 % 10 % % %	Y Y N N	FAC FACU FACU FACU	<ul> <li>☐ 1 - Rapid Test for Hydrophytic</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☐ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☐ 4 - Morphological Adaptations<sup>1</sup> supporting data in Remarks or o sheet)</li> </ul>	Vegetation (Provide on a separate tation <sup>1</sup> (Explain) ydrology must be
1.       Toxicodendron radicans         2.       Rubus allegheniensis         3.       Solidago altissima         4.       Parthenocissus quinquefolia         5.		25 % 15 % 10 % % % %	Y Y N N	FAC FACU FACU FACU	<ul> <li>☐ 1 - Rapid Test for Hydrophytic</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☑ 4 - Morphological Adaptations<sup>1</sup> supporting data in Remarks or o sheet)</li> <li>☑ Problematic Hydrophytic Veget</li> <li><sup>1</sup> Indicators of hydric soil and wetland h present, unless disturbed or problematic</li> </ul>	Vegetation (Provide on a separate tation <sup>1</sup> (Explain) ydrology must be c
1.       Toxicodendron radicans         2.       Rubus allegheniensis         3.       Solidago altissima         4.       Parthenocissus quinquefolia         5.		25 % 15 % 10 % % % % %	Y Y N N	FAC FACU FACU FACU	<ul> <li>□ 1 - Rapid Test for Hydrophytic</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> supporting data in Remarks or o sheet)</li> <li>□ Problematic Hydrophytic Veget</li> <li><sup>1</sup> Indicators of hydric soil and wetland h</li> </ul>	Vegetation (Provide on a separate tation <sup>1</sup> (Explain) ydrology must be c
1.       Toxicodendron radicans         2.       Rubus allegheniensis         3.       Solidago altissima         4.       Parthenocissus quinquefolia         5.		25 % 15 % 10 % % % % % %	Y Y N N	FAC FACU FACU FACU	<ul> <li>☐ 1 - Rapid Test for Hydrophytic</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☑ 4 - Morphological Adaptations<sup>1</sup> supporting data in Remarks or o sheet)</li> <li>☑ Problematic Hydrophytic Veget</li> <li><sup>1</sup> Indicators of hydric soil and wetland h present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or</li> </ul>	Vegetation (Provide on a separate tation <sup>1</sup> (Explain) ydrology must be c
1.       Toxicodendron radicans         2.       Rubus allegheniensis         3.       Solidago altissima         4.       Parthenocissus quinquefolia         5.		25 % 15 % 10 % % % % % %	Y Y N N	FAC FACU FACU FACU	<ul> <li>☐ 1 - Rapid Test for Hydrophytic</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☑ 4 - Morphological Adaptations<sup>1</sup> supporting data in Remarks or o sheet)</li> <li>☑ Problematic Hydrophytic Veget</li> <li><sup>1</sup> Indicators of hydric soil and wetland h present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> </ul>	Vegetation (Provide on a separate tation <sup>1</sup> (Explain) ydrology must be c
1.       Toxicodendron radicans         2.       Rubus allegheniensis         3.       Solidago altissima         4.       Parthenocissus quinquefolia         5.		25 % 15 % 10 % % % % % %	Y Y N N	FAC FACU FACU FACU	<ul> <li>☐ 1 - Rapid Test for Hydrophytic</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☐ 4 - Morphological Adaptations<sup>1</sup> supporting data in Remarks or or sheet)</li> <li>☐ Problematic Hydrophytic Veget</li> <li><sup>1</sup> Indicators of hydric soil and wetland h present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or diameter at breast height (DBH), reg</li> <li>Sapling/Shrub – Woody plants less</li> </ul>	Vegetation (Provide on a separate tation <sup>1</sup> (Explain) ydrology must be c
1.       Toxicodendron radicans         2.       Rubus allegheniensis         3.       Solidago altissima         4.       Parthenocissus quinquefolia         5.		25 % 15 % 10 % % % % % %	Y Y N N	FAC FACU FACU FACU	<ul> <li>☐ 1 - Rapid Test for Hydrophytic</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☐ 4 - Morphological Adaptations<sup>1</sup> supporting data in Remarks or or sheet)</li> <li>☐ Problematic Hydrophytic Veget</li> <li><sup>1</sup> Indicators of hydric soil and wetland h present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or diameter at breast height (DBH), reg</li> </ul>	Vegetation (Provide on a separate tation <sup>1</sup> (Explain) ydrology must be c
1. Toxicodendron radicans         2. Rubus allegheniensis         3. Solidago altissima         4. Parthenocissus quinquefolia         5.         6.         7.         8.         9.         10.         11.         12.         Woody Vine Stratum         1. Vitie riportie	(Plot size: <u>15'</u> )	25 % 15 % 10 % % % % % %	Y Y N N	FAC FACU FACU FACU	<ul> <li>☐ 1 - Rapid Test for Hydrophytic</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☑ 4 - Morphological Adaptations<sup>1</sup> supporting data in Remarks or or sheet)</li> <li>☑ Problematic Hydrophytic Veget</li> <li><sup>1</sup> Indicators of hydric soil and wetland h present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or diameter at breast height (DBH), reg</li> <li>Sapling/Shrub – Woody plants less and greater than 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody)</li> </ul>	Vegetation (Provide on a separate tation <sup>1</sup> (Explain) ydrology must be c r more in ardless of height. than 3 in. DBH plants, regardless
1.       Toxicodendron radicans         2.       Rubus allegheniensis         3.       Solidago altissima         4.       Parthenocissus quinquefolia         5.       .         6.       .         7.       .         8.       .         9.       .         10.       .         11.       .         12.       .         Woody Vine Stratum       .         1.       .         1.       .         1.       .	(Plot size: <u>15'</u> )	25 % 15 % 10 % % % % % % % 60 %	Y N N 	FACU FACU FACU	<ul> <li>☐ 1 - Rapid Test for Hydrophytic</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☑ 4 - Morphological Adaptations<sup>1</sup> supporting data in Remarks or or sheet)</li> <li>□ Problematic Hydrophytic Veget</li> <li><sup>1</sup> Indicators of hydric soil and wetland h present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or diameter at breast height (DBH), reg</li> <li>Sapling/Shrub – Woody plants less and greater than 3.28 ft (1 m) tall.</li> </ul>	Vegetation (Provide on a separate tation <sup>1</sup> (Explain) ydrology must be c r more in ardless of height. than 3 in. DBH plants, regardless
1. Toxicodendron radicans         2. Rubus allegheniensis         3. Solidago altissima         4. Parthenocissus quinquefolia         5.         6.         7.         8.         9.         10.         11.         12.         Woody Vine Stratum         1. Vitis riparia	(Plot size: <u>15'</u> )	25 % 15 % 10 % % % % % % 60 % 10 % %	Y N N 	FACU FACU FACU	<ul> <li>☐ 1 - Rapid Test for Hydrophytic</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☑ 4 - Morphological Adaptations<sup>1</sup> supporting data in Remarks or or sheet)</li> <li>☑ Problematic Hydrophytic Veget</li> <li><sup>1</sup> Indicators of hydric soil and wetland h present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or diameter at breast height (DBH), reg</li> <li>Sapling/Shrub – Woody plants less and greater than 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody)</li> </ul>	Vegetation (Provide on a separate tation <sup>1</sup> (Explain) ydrology must be c r more in ardless of height. than 3 in. DBH plants, regardless 3.28 ft tall.
1.       Toxicodendron radicans         2.       Rubus allegheniensis         3.       Solidago altissima         4.       Parthenocissus quinquefolia         5.       .         6.       .         7.       .         8.       .         9.       .         10.       .         11.       .         12.       .         Woody Vine Stratum       .         2.       .	(Plot size: <u>15'</u> )	25 % 15 % 10 % % % % % % % 60 % 10 % %	Y N N 	FACU FACU FACU	<ul> <li>☐ 1 - Rapid Test for Hydrophytic</li> <li>☑ 2 - Dominance Test is &gt;50%</li> <li>☑ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☑ 4 - Morphological Adaptations<sup>1</sup> supporting data in Remarks or or sheet)</li> <li>☑ Problematic Hydrophytic Veget</li> <li><sup>1</sup> Indicators of hydric soil and wetland h present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or diameter at breast height (DBH), reg.</li> <li>Sapling/Shrub – Woody plants less and greater than 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody) of size, and woody plants less than 3.3</li> </ul>	Vegetation (Provide on a separate tation <sup>1</sup> (Explain) ydrology must be c r more in ardless of height. than 3 in. DBH plants, regardless 3.28 ft tall.

Remarks (include photo numbers here or on a separate sheet): Photograph C-8.

	depth needed to document the indicator or confirm	the absence of indicators.)
Depth Matrix	Redox Features	
(inches) Color (moist) %		Texture Remarks
<u> </u>	J	Silt Loam
· · · · ·		
· · ·		
·		
·		
Type: C=Concentration, D=Depletion,	RM=Reduced Matrix, MS=Masked Sand Grains	<sup>2</sup> Location: PL=Pore Lining, M=Matrix
Hydric Soil Indicators:		Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Dark Surface (S7) (LRR R, MLRA 149B)	2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2)	Polyvalue Below Surface (S8) (MLRA 147, 148)	Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3)	☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)	☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1) (LRR K, L)	Dark Surface (S7) (LRR K, L)
Stratified Layers (A5)	Loamy Gleyed Matrix (F2)	Polyvalue Below Surface (S8) (LRR, K, L)
Depleted Below Dark Surface (A11)		Thin Dark Surface (S9) (LRR, K, L)
Thick Dark Surface (A12)	Redox Dark Surface (F6)	☐ Iron-Manganese Masses (F12) (LRR, K, L)
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	Piedmont Floodplain Soils (F19) ( <b>MLRA 149B</b> )
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	Mesic Spodic (TA6) ( <b>MLRA 144A, 145, 149B</b> )
Sandy Redox (S5)		Red Parent Material (F21)
Stripped Matrix (S6)		Very Shallow Dark Surface (TF12)
3		Other (Explain in Remarks)
<sup>°</sup> Indicators of hydrophytic vegetation an	d wetland hydrology must be present, unless disturbed o	or problematic
Restrictive Layer (if observed):		Hydric Soil Present?
Type: Bedrock	Depth (inches): 6	□ Yes 🖾 No
Remarks: No hydric soil indicators are	e present. Soils in this location are highly disturbed from	quarry operations.

Project/Site: Lake Avenue Sub	station Project		City/County: L	orain County	Sampling Date: 7/11/2012
Applicant/Owner: American Tr	ansmission Sys	stems, Inc.		State:	OH Sampling Point: <u>SP-9</u>
Investigator(s): <u>G. Shaw</u>			Section,	Township, Range:	T6N, R17W
Landform (hillslope, terrace, etc.)	) none		Local relief (conca	ve, convex, none):	concave Slope (%): 0
Subregion (LRR or MLRA):R	R R	Lat: 41.412	519 Lo	ong: <u>-82.119393</u>	Datum: NAD 83
Soil Map Unit Name: Quarrie	S			N	WI Classification: <u>PEM (W-4)</u>
Are climate/hydrologic conditions	on the site typi	ical for this time	e of year? 🛛 🛛 Yes	□ No (If no	, explain in Remarks)
Veg	etation Soil	Hydrology			
0,				al Circumstances"	•
Naturally Problematic?			(11 116	eeded, explain any an	swers in Remarks)
SUMMARY OF FINDINGS – A	ttach site ma	ap showing s	ampling point loca	ations, transect	s, important features, etc.
	Ye		Remarks:		
Hydrophytic Vegetation Present?					
Hydric Soil Present?					
Wetland Hydrology Present?					
Is the Sampled Area within a W	/etland?				
HYDROLOGY					
Wetland Hydrology Indicators:				Se	condary Indicators (minimum of two required)
Primary Indicators (minimum of o	one required; ch	neck all that app	<u>oly)</u>		Surface Soil Cracks (B6)
Surface Water (A1)		U Water-Stair	ned Leaves (B9)		Drainage Patterns (B10)
High Water Table (A2)		Aquatic Fa	una (B13)		Moss Trim Lines (B16)
Saturation (A3)		Marl Depos	sits (B15)		Dry-Season Water Table (C2)
Water Marks (B1)		Hydrogen S	Sulfide Odor (C1)		Crayfish Burrows (C8)
Sediment Deposits (B2)		Oxidized R	hizospheres on Living	Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)		Presence of	of Reduced Iron (C4)		Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)		Recent Iror	n Reduction in Tilled S	oils (C6)	Geomorphic Position (D2)
Iron Deposits (B5)		Thin Muck	Surface (C7)		Shallow Aquitard (D3)
Inundation Visible on Aerial Ir	nagery (B7)	Other (Exp	lain in Remarks)		Microtopographic Relief (D4)
Sparsely Vegetated Concave	Surface (B8)			$\boxtimes$	FAC-Neutral Test (D5)
Field Observations:	Yes No	Depth			uge, monitoring well, aerial photos, previous
Surface Water Present?		<u>(inches):</u>	inspections, etc.),	If available:	
Water Table Present?					
Saturation Present?					
(includes capillary fringe)					
Wetland Hydrology Present?					
Remarks: Wetland hydrology ind	licators D2 and	D5 are present	t.		

Sampling Point: SP-9

<b>-</b> 04 4		Absolute	Dominant	Indicator	Dominance Test worksheet:
1	(Plot size: <u>30'</u> )		Species?	Status	Number of Dominant Species that are OBL, FACW, or FAC:1 (A)
2.		%			Total Number of Dominant
3.		%			Species Across All Strata: 1 (B)
4.		%			Percent of Dominant Species
5.		%			that are OBL, FACW, or FAC: 100% (A/E
6					Prevalence Index worksheet:
7		%			
		0 % =	= Total Cove	r	Total % Cover of: Multiply by:
					OBL species% x 1 =0
Sapling/Shrub Stratum	(Plot size: <u>15'</u> )				FACW species % x 2 = 0
1		%			FAC species % x 3 = 0
2		%			
3		%			
4		%			UPL species% x 5 =0
5		%			Column Totals: <u>0</u> % (A) <u>0</u> (B
6					Prevalence Index = B/A =
7					
		0 % =	= Total Cove	ſ	Hydrophytic Vegetation Indicators:
Herb Stratum	(Plot size: <u>5'</u> )				☑ 1 - Rapid Test for Hydrophytic Vegetation
1. Phragmites australis		<b>~</b> ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~			
		90 %	Y	FACW	X 2 - Dominance Test is >50%
			<u>Y</u> N	FACW FACU	☑ 2 - Dominance Test is >50%
2. Sonchus arvensis		<u>90 %</u> <u>10 %</u> 5 %		FACW FACU FACW	□ 3 - Prevalence Index is $\leq 3.0^{1}$
2. <u>Sonchus arvensis</u> 3. Persicaria pensylvanica		10 %	N	FACU	<ul> <li>☐ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☐ 4 - Morphological Adaptations<sup>1</sup> (Provide</li> </ul>
<ol> <li>Sonchus arvensis</li> <li>Persicaria pensylvanica</li> <li>4.</li> </ol>		<u>10 %</u> 5 %	N	FACU	□ 3 - Prevalence Index is $\leq 3.0^{1}$
<ol> <li>Sonchus arvensis</li> <li>Persicaria pensylvanica</li> <li></li></ol>		10 % 5 % % %	<u>N</u> N	FACU FACW	<ul> <li>☐ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> </ul>
2. Sonchus arvensis 3. Persicaria pensylvanica 4. 5. 6.		10 % 5 % % %	N N	FACU FACW	<ul> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> </ul>
<ol> <li>Sonchus arvensis</li> <li>Persicaria pensylvanica</li> <li></li></ol>		10 % 5 % % % % %	<u>N</u> N	FACU FACW	<ul> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be</li> </ul>
<ol> <li>Sonchus arvensis</li> <li>Persicaria pensylvanica</li> <li></li></ol>		10 % 5 % % % % % %	<u>N</u> N	FACU FACW	<ul> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> </ul>
<ol> <li>Sonchus arvensis</li> <li>Persicaria pensylvanica</li> <li></li></ol>		10 % 5 % % % % % %	<u>N</u> N	FACU FACW	<ul> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be</li> </ul>
Sonchus arvensis           3.         Persicaria pensylvanica           4.		10 % 5 % % % % % % %	N N	FACU FACW	<ul> <li>☐ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> </ul>
2.       Sonchus arvensis         3.       Persicaria pensylvanica         4.		10 % 5 % % % % % % %	<u>N</u> N	FACU FACW	<ul> <li>☐ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> </ul>
2.       Sonchus arvensis         3.       Persicaria pensylvanica         4.		10 %           5 %           %	N N	FACU FACW	<ul> <li>☐ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height</li> </ul>
2.       Sonchus arvensis         3.       Persicaria pensylvanica         4.		10 %           5 %           %	N N	FACU FACW	<ul> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in</li> </ul>
2.       Sonchus arvensis         3.       Persicaria pensylvanica         4.	(Plot size: <u>30'</u> )	10 % 5 % % % % % % % % % 105 %	N N	FACU FACW	<ul> <li>☐ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height and greater than 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody) plants, regardless</li> </ul>
2.       Sonchus arvensis         3.       Persicaria pensylvanica         4.	(Plot size: <u>30'</u> )	10 % 5 % % % % % % % 105 %	N N	FACU FACW	<ul> <li>☐ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height Sapling/Shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</li> </ul>
2.       Sonchus arvensis         3.       Persicaria pensylvanica         4.	(Plot size: <u>30'</u> )	10 % 5 % % % % % % % 105 %	N N	FACU FACW	<ul> <li>☐ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height and greater than 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody) plants, regardless</li> </ul>
2.       Sonchus arvensis         3.       Persicaria pensylvanica         4.	(Plot size: <u>30'</u> )	10 % 5 % % % % % % % % 105 % 5 %	N N	FACU FACW	<ul> <li>☐ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height sapling/Shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</li> </ul>

Remarks (include photo numbers here or on a separate sheet): Photograph C-9.

Depth	Matrix		-	Redox Fea			the absence of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-2	10YR 3/1	100	<u> </u>				Sandy loam	
2-8	10YR 4/2	95	7.5YR 4/6	5	С	М	Sandy loam	
8-14	10YR 6/2	95	7.5YR 4/6	5	C	М	Sandy loam	
					·			
					·			
							<u> </u>	
Гуре: С=Сс	ncentration, D=Depl	etion, RM	M=Reduced Matrix, M	1S=Maske	ed Sand Grain	ns	<sup>2</sup> Location: PL=Pore Linin	g, M=Matrix
lydric Soil I	ndicators:						Indicators for Problematic Hyd	ric Soils <sup>3</sup> :
] Histosol (A	A1)		Dark Surface (S	7) ( <b>LRR R</b>	, MLRA 149	B)	2 cm Muck (A10) (LRR K, L,	MLRA 149B)
] Histic Epip	pedon (A2)		Polyvalue Below	Surface	(S8) ( <b>MLRA</b> ′	147, 148)	🗌 Coast Prairie Redox (A16) (L	RR K, L, R)
Black Hist	ic (A3)		Thin Dark Surfac	ce (S9) ( <b>L</b>	RR R, MLRA	149B)	☐ 5 cm Mucky Peat or Peat (S3	) (LRR K, L, R)
] Hydrogen	Sulfide (A4)		Loamy Mucky M	lineral (F1	) (LRR K, L)		Dark Surface (S7) (LRR K, L	)
Stratified I	_ayers (A5)		Loamy Gleyed M	/latrix (F2)			Polyvalue Below Surface (S8	) (LRR, K, L)
Depleted I	Below Dark Surface	(A11)	Depleted Matrix	(F3)			Thin Dark Surface (S9) (LRR	, <b>K</b> , L)
Thick Darl	k Surface (A12)		Redox Dark Sur	face (F6)			Iron-Manganese Masses (F12	2) ( <b>LRR, K, L</b> )
	cky Mineral (S1)		Depleted Dark S		7)		Piedmont Floodplain Soils (F	
-	eyed Matrix (S4)		Redox Depression		,		Mesic Spodic (TA6) (MLRA 1	
 _] Sandy Re				( - )			Red Parent Material (F21)	, -, -
Stripped N							□ Very Shallow Dark Surface (1	F12)
							☐ Other (Explain in Remarks)	1 12)
Indicators of	hydrophytic vegetati	ion and v	vetland hydrology mu	ust be pres	sent, unless o	disturbed o	,	
	ayer (if observed):						Hydric Soil Present?	
уре:			Depth (inches):				Yes 🗌 No	
Remarks: H	ydric soil indicator F	3 is pres	ent.					

Project/Site: Lake Avenue Subs	station Project		City/County:	Lorain County	Sampling Date: 7/11/2012
Applicant/Owner: American Tra	Insmission Sys	tems, Inc.		State: OH	Sampling Point: SP-10
Investigator(s): <u>G. Shaw</u>			Sectio	n, Township, Range: <u>1</u>	Г6N, R17W
Landform (hillslope, terrace, etc.)	hillslope		Local relief (cond	cave, convex, none): <u>n</u>	one Slope (%): 2
Subregion (LRR or MLRA):	R R	Lat: 41.412	516	Long: <u>-82.119912</u>	Datum: NAD 83
Soil Map Unit Name: Quarries	3			NWI C	Classification: Upland
Are climate/hydrologic conditions	on the site typi	cal for this time	e of year? 🛛 🖂 Ye	s 🗌 No (If no, exp	plain in Remarks)
Vege	tation Soil	Hydrology			
			Are "Nor	mal Circumstances" pres	
Naturally Problematic?			(11	needed, explain any answe	rs in Remarks)
SUMMARY OF FINDINGS - A	ttach site ma	p showing s	ampling point lo	cations, transects, ir	nportant features, etc.
	Ye	s No	Remarks:		
Hydrophytic Vegetation Present?					
Hydric Soil Present?					
Wetland Hydrology Present?					
Is the Sampled Area within a W	etland?				
HYDROLOGY					
Wetland Hydrology Indicators:				Second	dary Indicators (minimum of two required)
Primary Indicators (minimum of or	ne required; ch	eck all that app	<u>ply)</u>	🗌 Surf	face Soil Cracks (B6)
Surface Water (A1)		U Water-Stai	ned Leaves (B9)	🗌 Drai	inage Patterns (B10)
High Water Table (A2)		Aquatic Fa	una (B13)	🗌 Mos	s Trim Lines (B16)
Saturation (A3)		Marl Depos	sits (B15)	🗌 Dry-	Season Water Table (C2)
Water Marks (B1)		Hydrogen S	Sulfide Odor (C1)	🗌 Cray	yfish Burrows (C8)
Sediment Deposits (B2)		Oxidized R	hizospheres on Livi	ng Roots (C3) 🛛 🗌 Satu	uration Visible on Aerial Imagery (C9)
Drift Deposits (B3)		Presence of	of Reduced Iron (C4	) 🗌 Stur	nted or Stressed Plants (D1)
☐ Algal Mat or Crust (B4)		Recent Iro	n Reduction in Tilled	Soils (C6) Geo	pmorphic Position (D2)
☐ Iron Deposits (B5)		Thin Muck		🗌 Sha	llow Aquitard (D3)
Inundation Visible on Aerial Im	••••	Other (Exp	lain in Remarks)		rotopographic Relief (D4)
Sparsely Vegetated Concave	Surface (B8)			□ FAC	C-Neutral Test (D5)
Field Observations:	Yes No	Depth (inches):	Describe Recoring inspections, etc.		, monitoring well, aerial photos, previous
Surface Water Present?		<u>(monooj.</u>	inspections, etc		
Water Table Present?					
Saturation Present?					
(includes capillary fringe)					
Wetland Hydrology Present?					
Remarks: No wetland hydrology i	indicators are p	present.			

Sampling Point: SP-10

		Absolute	Dominant	Indicator	Dominance Test worksheet:	
<u>ree Stratum</u> 1	(Plot size: <u>30'</u> )	<u>% Cover</u> %	Species?	Status	Number of Dominant Species that are OBL, FACW, or FAC: 1	(A)
1 2					Total Number of Dominant	_ ` `
2						(B)
3					Percent of Dominant Species	
4 5					that are OBL, FACW, or FAC: 50%	_(A/I
6		%				
7		<u> </u>			Prevalence Index worksheet:	
		0 % =	= Total Cove	r	Total % Cover of:Multiply by:	_
Sapling/Shrub Stratum	(Plot size: 15')				OBL species% x 1 =0	
	(Plot size: <u>15'</u> )				FACW species% x 2 =0	_
1		%			FAC species % x 3 = 0	
2					FACU species% x 4 =	
3.		%				
4		%			UPL species% x 5 =0	_
5		%			Column Totals: <u>0</u> % (A) <u>0</u>	_(B
6 7		%			Prevalence Index = B/A =	
7			= Total Cove	r	Liverante da Vanatation Indiactora	
					Hydrophytic Vegetation Indicators:	
Herb Stratum	(Plot size: <u>5'</u> )				□ 1 - Rapid Test for Hydrophytic Vegetation	
1. Poa compressa			Y	FACU	☐ 2 - Dominance Test is >50%	
2. Agrostis stolonifera				FACW	□ 3 - Prevalence Index is $\leq 3.0^{1}$	
3. Daucus carota		10 %				
4. Verbascum thapsus		5 %			4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate	е
5		%			sheet)	
6		%			Problematic Hydrophytic Vegetation <sup>1</sup> (Expl	lain)
7		%			<sup>1</sup> Indicators of hydric soil and wetland hydrology mus	st be
8		%			present, unless disturbed or problematic	
9		%			Definitions of Vegetation Strata:	
0		%			Deminions of Vegetation offata.	
1		%			Tree – Woody plants 3 in. (7.6 cm) or more in	
2					diameter at breast height (DBH), regardless of h	eignt
Noody Vine Stratum	(Plot size: 30')	<u>   110 %  </u> :	= Total Cove	r	<b>Sapling/Shrub</b> – Woody plants less than 3 in. D and greater than 3.28 ft (1 m) tall.	BH
	·	<u>.</u>			Herb – All herbaceous (non-woody) plants, rega	rdlog
1					of size, and woody plants less than 3.28 ft tall.	ules
2		%				ъ.e.:.
J		%			Woody vine – All woody vines greater than 3.28 height.	sπin
4		%				
		0% :	= Total Cove			

**Remarks** (include photo numbers here or on a separate sheet): Photograph C-10.

SOIL							Sampling Point: <u>SP-</u>	10		
Profile De	scription: (Describe to	the dep	th needed to docur	nent the	e indicator o	<sup>r</sup> confirm t	the absence of indicators.)			
Depth	Matrix		R	edox Fe	atures		_			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks		
0-14	7.5YR 4/6	100					Sandy loam			
					<u> </u>					
				-						
					·					
4										
'Type: C=	Concentration, D=Deplet	ion, RM=	Reduced Matrix, MS	S=Maske	ed Sand Grain	าร	<sup>2</sup> Location: PL=Pore Lini	ng, M=Matrix		
Hydric Soi	il Indicators:						Indicators for Problematic Hyd	dric Soils <sup>3</sup> :		
Histoso	I (A1)	[	Dark Surface (S7	) (LRR F	R, MLRA 149	3)	2 cm Muck (A10) (LRR K, L,	MLRA 149B)		
Histic E	pipedon (A2)	[	Polyvalue Below	Surface	(S8) ( <b>MLRA</b> ′	47, 148)	Coast Prairie Redox (A16) (	<b>_RR K, L, R</b> )		
Black H	listic (A3)	[	Thin Dark Surface	e (S9) ( <b>L</b>	RR R, MLRA	149B)	☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)			
Hydroge	en Sulfide (A4)	[	Loamy Mucky Mir	neral (F1	) (LRR K, L)		Dark Surface (S7) (LRR K, L)			
Stratifie	d Layers (A5)	[	Loamy Gleyed Ma	atrix (F2	)		Polyvalue Below Surface (S8	3) ( <b>LRR, K, L</b> )		
Deplete	ed Below Dark Surface (A	.11) [	Depleted Matrix (I	F3)			Thin Dark Surface (S9) (LRF	R, K, L)		
Thick D	ark Surface (A12)	[	Redox Dark Surfa	ace (F6)			☐ Iron-Manganese Masses (F1	2) ( <b>LRR, K, L</b> )		
Sandy I	Mucky Mineral (S1)	[	Depleted Dark Su	irface (F	7)		Piedmont Floodplain Soils (F	19) ( <b>MLRA 149B</b> )		
Sandy (	Gleyed Matrix (S4)	[	Redox Depression	ns (F8)			Mesic Spodic (TA6) (MLRA	144A, 145, 149B)		
Sandy F	Redox (S5)						Red Parent Material (F21)			
Stripped	d Matrix (S6)						Very Shallow Dark Surface (	TF12)		
_							Other (Explain in Remarks)			
<sup>3</sup> Indicators	of hydrophytic vegetation	n and we	tland hydrology mus	t be pre	sent, unless o	listurbed o	r problematic			
Restrictive	e Layer (if observed):						Hydric Soil Present?			
Туре:	gravel		Depth (inches):	14			🗌 Yes 🛛 No			
Remarks:	No hydric soil indicators	s are pre	sent.							

Project/Site: Lake Avenue Substat	tion Project		City/County: Lorain County Sampling Date: 7/11/2012
Applicant/Owner: American Trans	mission System	ns, Inc.	State: OH Sampling Point: SP-11
Investigator(s): <u>G. Shaw</u>			Section, Township, Range: <u>T6N, R17W</u>
Landform (hillslope, terrace, etc.)	depression		Local relief (concave, convex, none): <u>concave</u> Slope (%): <u>0</u>
Subregion (LRR or MLRA): LRR F	Lat	t: <u>41.4121</u>	2116 Long: -82.119362 Datum: NAD 83
Soil Map Unit Name: Quarries			NWI Classification: PFO (W-5)
Are climate/hydrologic conditions on	the site typical	for this time	e of year? 🛛 Yes 🗌 No (If no, explain in Remarks)
Vegetati		Hydrology	∕ Are "Normal Circumstances" present?  ⊠ Yes  □ No
Significantly Disturbed?Naturally Problematic?			(If needed, explain any answers in Remarks)
	_	_	
SUMMARY OF FINDINGS – Atta		_	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Propert?	Yes	No	Remarks:
Hydrophytic Vegetation Present? Hydric Soil Present?	$\boxtimes$		
Wetland Hydrology Present?			
Is the Sampled Area within a Wetla			
•		_	
HYDROLOGY			
Wetland Hydrology Indicators:	required: aboat	coll that any	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one			
Surface Water (A1)			ined Leaves (B9) Drainage Patterns (B10)
☐ High Water Table (A2)		Aquatic Fai	
Saturation (A3)		Marl Depos	
Water Marks (B1)		, ,	Sulfide Odor (C1) Crayfish Burrows (C8)
Sediment Deposits (B2)			Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)			of Reduced Iron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)			on Reduction in Tilled Soils (C6) Geomorphic Position (D2)
<ul> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Imag</li> </ul>			< Surface (C7)
Sparsely Vegetated Concave Sur	,, _	Other (Exp	
			FAC-Neutral Test (D5)
Field Observations: Ye	es No	Depth (inches):	Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections, etc.), if available:
Surface Water Present?	'	<u> </u>	
Water Table Present?			-
Saturation Present?			
(includes capillary fringe)	a 🗆		
Wetland Hydrology Present?		1.50	
Remarks: Wetland hydrology indicate	ors B1, B8, B9,	, and D2 are	re present.

Sampling Point: SP-11

	•				1 0	
			Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum	(Plot size: <u>30'</u> )		Species?	Status	Number of Dominant Species that are OBL, FACW, or FAC:	2 (A)
<ol> <li>Populus deltoides</li> <li>Acer rubrum</li> </ol>		<u>50 %</u> 50 %		FAC FAC	Total Number of Dominant	( )
				FAC	Species Across All Strata:	3 (B)
3					Percent of Dominant Species	
4 5					that are OBL, FACW, or FAC:	<u>67%</u> (A/B)
6.		%				
7.		%			Prevalence Index worksheet:	
		100 % = 1			Total % Cover of:	Multiply by:
Sapling/Shrub Stratum	(Plot aizo: 15')				OBL species%	x 1 =
Sapling/Shrub Stratum	(Plot size: <u>15'</u> )				FACW species%	x 2 =0
1. Rosa multiflora			Y		FAC species %	x 3 =0
			Y			x 4 = 0
3		%				
4		%				x 5 = <u>0</u>
5		<u> </u>			Column Totals: <u>0</u> %	(A) <u>0</u> (B)
6 7		<u>%</u> %			Prevalence Index = B/A =	
		10 % = 1	Fotal Cove		Hydrophytic Vegetation Indic	ators:
Herb Stratum	(Plot size: <u>5'</u> )				☐ 1 - Rapid Test for Hydrophy	rtic Vegetation
1		%			2 - Dominance Test is >50%	6
2		%			 ☐ 3 - Prevalence Index is ≤3.0	
3		%				
4		%			4 - Morphological Adaptatic supporting data in Remarks	
5		%			sheet)	
6		%			Problematic Hydrophytic Ve	egetation <sup>1</sup> (Explain)
7		%			<sup>1</sup> Indicators of hydric soil and wetlar	nd hydrology must be
8		%			present, unless disturbed or problem	
9			<u> </u>		Definitions of Vegetation Stra	ata:
10		%			Deminions of Vegetation Out	
11		<u> </u>			Tree – Woody plants 3 in. (7.6 cr diameter at breast height (DBH),	
12		%			diameter at breast height (DBH),	regardless of height.
Woody Vine Stratum	(Plot size: 30')	0 % =	Fotal Cove	ſ	Sapling/Shrub – Woody plants I and greater than 3.28 ft (1 m) tall	
	· · · · · · · · · · · · · · · · · · ·	0/			Herb – All herbaceous (non-woo	dv) plants regardless
1		<u>%</u> <u>%</u>			of size, and woody plants less the	
2			<u> </u>		Woody vine – All woody vines g	reater than 3 28 ft in
3 4		%	<u> </u>		height.	
"			Fotal Cove			
					Hydrophytic Vegetation Preser	t? 🖾 Yes 🗌 No

**Remarks** *(include photo numbers here or on a separate sheet):* Rosa multiflora was dropped from the Dominance Test calculation as prescribed in section 5a of Problematic Hydrophytic Vegetation of the Northeast Regional Supplement. Photograph C-11.

Profile Desci	ription: (Describe to	o the de	epth needed to docu	ment the	indicator or	confirm	the absence of indicators.)	
Depth	Matrix		F	Redox Fea	atures		_	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-10	10YR 4/1	90	5YR 3/4	10	C	М	Clay Loam	
10-20	10YR 6/1	90	5YR 3/4	10	С	Μ	Sandy Loam	
					·			
	· ·				·			
					·			
				. <u> </u>				
<sup>1</sup> Type: C=Co	ncentration, D=Deplet	tion, RN	/I=Reduced Matrix, M	S=Maske	ed Sand Grair	IS	<sup>2</sup> Location: PL=Pore Linin	g, M=Matrix
Hydric Soil II	ndicators:						Indicators for Problematic Hyd	ric Soils <sup>3</sup> :
Histosol (A	<b>\</b> 1)		Dark Surface (S7	7) (LRR R	, MLRA 1491	3)	2 cm Muck (A10) (LRR K, L, I	MLRA 149B)
Histic Epip	oedon (A2)		Polyvalue Below	Surface (	(S8) ( <b>MLRA</b> 1	47, 148)	Coast Prairie Redox (A16) (LI	RR K, L, R)
Black Hist	ic (A3)		Thin Dark Surfac	æ (S9) (L	RR R, MLRA	149B)	5 cm Mucky Peat or Peat (S3	) (LRR K, L, R)
Hydrogen	Sulfide (A4)		Loamy Mucky M	ineral (F1	) (LRR K, L)		Dark Surface (S7) (LRR K, L)	)
Stratified L	₋ayers (A5)		Loamy Gleyed N	latrix (F2)			Polyvalue Below Surface (S8)	) (LRR, K, L)
Depleted I	Below Dark Surface (A	A11)	Depleted Matrix	(F3)			Thin Dark Surface (S9) (LRR,	, <b>K</b> , L)
Thick Dark	(Surface (A12)		Redox Dark Surf	ace (F6)			Iron-Manganese Masses (F12)	2) (LRR, K, L)
Sandy Mu	cky Mineral (S1)		Depleted Dark S	urface (F	7)		Piedmont Floodplain Soils (F1)	19) ( <b>MLRA 149B</b> )
Sandy Gle	eyed Matrix (S4)		Redox Depression	ons (F8)			Mesic Spodic (TA6) (MLRA 1	44A, 145, 149B)
Sandy Re	dox (S5)						Red Parent Material (F21)	
Stripped N	latrix (S6)						Very Shallow Dark Surface (T	F12)
							Other (Explain in Remarks)	
<sup>3</sup> Indicators of	hydrophytic vegetatio	on and v	vetland hydrology mu	st be pres	sent, unless c	listurbed o	r problematic	
Restrictive L	ayer (if observed):						Hydric Soil Present?	
Туре:			Depth (inches):				🖾 Yes 🔲 No	
Remarks: H	ydric soil indicator F3	is prese	ent.					

Project/Site: Lake Avenue Subs	station Project		City/County:	Lorain County	Sampling Date: 7/11/2012
Applicant/Owner: American Tra	nsmission Syst	tems, Inc.		State: C	OH Sampling Point: SP-12
Investigator(s): <u>G. Shaw</u>			Section	, Township, Range:	T6N, R17W
Landform (hillslope, terrace, etc.)	depression		Local relief (conca	ave, convex, none):	concave Slope (%): 0
Subregion (LRR or MLRA):	۲R	Lat: 41.4122	235 L	ong: <u>-82.122353</u>	Datum: NAD 83
Soil Map Unit Name: Quarries	;			NV	VI Classification: <u>PEM (W-6)</u>
Are climate/hydrologic conditions	on the site typi	cal for this time	e of year? 🛛 🛛 Yes	□ No (If no,	explain in Remarks)
Vege	tation Soil	Hydrology			
Significantly Disturbed?				nal Circumstances" p	
Naturally Problematic?			(11 1	needed, explain any ans	wers in Remarks)
SUMMARY OF FINDINGS – A	tach site ma	p showing s	ampling point loc	ations, transects	, important features, etc.
	Ye	s No	Remarks:		
Hydrophytic Vegetation Present?					
Hydric Soil Present?					
Wetland Hydrology Present?					
Is the Sampled Area within a We	etland?				
HYDROLOGY					
Wetland Hydrology Indicators:				Sec	ondary Indicators (minimum of two required)
Primary Indicators (minimum of or	<u>ne required; ch</u>	eck all that app	<u>ply)</u>	🗆 S	Surface Soil Cracks (B6)
Surface Water (A1)		U Water-Stai	ned Leaves (B9)		Drainage Patterns (B10)
High Water Table (A2)		Aquatic Fa	una (B13)		loss Trim Lines (B16)
Saturation (A3)		Marl Depos			Dry-Season Water Table (C2)
Water Marks (B1)		Hydrogen S	Sulfide Odor (C1)		Crayfish Burrows (C8)
Sediment Deposits (B2)		Oxidized R	hizospheres on Livin	g Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)		Presence of	of Reduced Iron (C4)	□ s	Stunted or Stressed Plants (D1)
☐ Algal Mat or Crust (B4)			n Reduction in Tilled	Soils (C6)	Geomorphic Position (D2)
☐ Iron Deposits (B5)		Thin Muck			Shallow Aquitard (D3)
Inundation Visible on Aerial Im		Other (Exp	lain in Remarks)		licrotopographic Relief (D4)
Sparsely Vegetated Concave S	Surface (B8)			S F	AC-Neutral Test (D5)
Field Observations:	Yes No	Depth (inches):	Describe Record inspections, etc.		ige, monitoring well, aerial photos, previous
Surface Water Present?		<u>(inches).</u>	inspections, etc.	, li avaliable.	
Water Table Present?					
Saturation Present?					
(includes capillary fringe)					
Wetland Hydrology Present?					
Remarks: Wetland hydrology indi	cators C3, D2,	and D5 are pro	esent.		

Sampling Point: SP-12

	•				
		Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	(Plot size: <u>30'</u> )	% Cover	Species?	Status	Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)
1		%			, , ,
2		%			Total Number of DominantSpecies Across All Strata:3 (B)
3		%			· · /
4		%			Percent of Dominant Species that are OBL, FACW, or FAC:100% (A/B
5					
6		%			Prevalence Index worksheet:
7					Total % Cover of: Multiply by:
		0 % =	= Total Cove	r	
Sapling/Shrub Stratum	(Plot size: <u>15'</u> )				OBL species% x 1 =0
	(ot 0.201 <u>.ot</u> )	<b>F</b> 0/	X	540	FACW species% x 2 =0
			Y		FAC species% x 3 =0
2		%			FACU species % x 4 = 0
3		<u>%</u> %			UPL species % x 5 = 0
4					· <u> </u>
5					Column Totals: <u>0</u> % (A) <u>0</u> (B)
67					Prevalence Index = B/A =
7			= Total Cove		
		<u> </u>		I	Hydrophytic Vegetation Indicators:
Herb Stratum	(Plot size: <u>5'</u> )				1 - Rapid Test for Hydrophytic Vegetation
1. Phragmites australis		60 %	Y	FACW	☑ 2 - Dominance Test is >50%
2. Verbena hastata		20 %	Y	FACW	□ 3 - Prevalence Index is $\leq 3.0^{1}$
3. Impatiens capensis		10 %	N	FACW	
4. Cyperus strigosus		5 %		FACW	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate
5		%			sheet)
6		%			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
7		%			<sup>1</sup> Indicators of hydric soil and wetland hydrology must be
8		<u> </u>			present, unless disturbed or problematic
9		%			
10		%			Definitions of Vegetation Strata:
11		%			Tree – Woody plants 3 in. (7.6 cm) or more in
12		%			diameter at breast height (DBH), regardless of height.
		95 %	= Total Cove	r	Sapling/Shrub – Woody plants less than 3 in. DBH
Woody Vine Stratum	(Plot size: <u>30'</u> )				and greater than 3.28 ft (1 m) tall.
1		%			Herb – All herbaceous (non-woody) plants, regardless
		%			of size, and woody plants less than 3.28 ft tall.
2.		/0			
23.		%			Woody vine – All woody vines greater than 3 28 ft in
2 3 4.		%			<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
2 3 4		%	Total Cove		

**Remarks** (include photo numbers here or on a separate sheet): Photograph C-12.

Depth Matrix Redox Features	
	Remarks
0-14 10YR 4/1 95 10YR 5/6 5 C PL Silt Loam	
14-20 10YR 6/1 70 10YR 5/6 20 C M Clay Loam	
10YR2/1 10 D M	
·  · · · · · · · · · · · ·  ~  ~ ~ ~ ~ ~ ~ ~ ~	
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains <sup>2</sup> Location: PL=Pore Lining, M=	Matrix
Hydric Soil Indicators: Indicators for Problematic Hydric So	oils³:
Histosol (A1) Dark Surface (S7) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA	<b>\ 149B</b> )
🗆 Histic Epipedon (A2) 🔹 Polyvalue Below Surface (S8) (MLRA 147, 148) 🔹 Coast Prairie Redox (A16) (LRR K	, <b>L, R</b> )
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LR	R K, L, R)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L)	
□ Stratified Layers (A5) □ Loamy Gleyed Matrix (F2) □ Polyvalue Below Surface (S8) (LR	₹, K, L)
Depleted Below Dark Surface (A11) Depleted Matrix (F3)	)
Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LF	.R, K, L)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (N	LRA 149B)
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A,	145, 149B)
Sandy Redox (S5)	
□ Stripped Matrix (S6) □ Very Shallow Dark Surface (TF12)	
Other (Explain in Remarks)	
<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic	
Restrictive Layer (if observed): Hydric Soil Present?	
Type:          Depth (inches):          ☑ Yes         □ No	
Remarks: Hydric soil indicator F3 is present.	

Project/Site: Lake Avenue Substation Project	City/County: Lorain County	Sampling Date: 7/11/2012
Applicant/Owner: _ American Transmission Systems, I	Inc. State	: OH Sampling Point: SP-13
Investigator(s): <u>G. Shaw</u>	Section, Township, Ra	nge:
Landform (hillslope, terrace, etc.) hillslope	Local relief (concave, convex, no	ne): <u>none</u> Slope (%): <u>2</u>
Subregion (LRR or MLRA): LRR R Lat:	41.412147 Long: -82.123	682 Datum: NAD 83
Soil Map Unit Name:	percent slopes	NWI Classification: Upland
Are climate/hydrologic conditions on the site typical for	r this time of year? 🛛 Yes 🗌 No 🥢	lf no, explain in Remarks)
Vegetation Soil Hy	lydrology	
Significantly Disturbed?	Are "Normal Circumstand	· – –
Naturally Problematic?	(If needed, explain al	ny answers in Remarks)
SUMMARY OF FINDINGS – Attach site map sho	owing sampling point locations, trans	ects, important features, etc.
Yes	No Remarks:	
Hydrophytic Vegetation Present?		
Hydric Soil Present?		
Wetland Hydrology Present?		
Is the Sampled Area within a Wetland?		
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required; check all	<u>ll that apply)</u>	Surface Soil Cracks (B6)
Surface Water (A1)	/ater-Stained Leaves (B9)	Drainage Patterns (B10)
High Water Table (A2)	quatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3)	larl Deposits (B15)	Dry-Season Water Table (C2)
□ Water Marks (B1) □ Hy	ydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	xidized Rhizospheres on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	resence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
	ecent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)
	hin Muck Surface (C7)	Shallow Aquitard (D3)
	ther (Explain in Remarks)	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)
Field Observationes Ver No.		n gauge, monitoring well, aerial photos, previous
Surface Water Present?	iches): inspections, etc.), if available:	
Water Table Present?		
Saturation Present?		
(includes capillary fringe)		
Wetland Hydrology Present?		
Remarks: No wetland hydrology indicators are present	nt.	

Sampling Point: SP-13

		Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum	(Plot size: <u>30'</u> )		Species?	Status	Number of Dominant Species that are OBL, FACW, or FAC: 0	(A)
1						_(/ ()
2		%			Total Number of DominantSpecies Across All Strata:2	(B)
3					Percent of Dominant Species	
4 5					•	(A/B)
6		%				
7.		%			Prevalence Index worksheet:	
			= Total Cover		Total % Cover of: Multiply by:	
Oracline (Ohmeth, Ohmethame					OBL species% x 1 =0	
Sapling/Shrub Stratum	(Plot size: <u>15'</u> )				FACW species% x 2 =0	
1		%		<u> </u>	FAC species % x 3 = 0	
2		%		<u> </u>	FACU species % x 4 = 0	_
3		<u>%</u> %				
45					· <u> </u>	
5 6		%			Column Totals: <u>0</u> % (A) <u>0</u>	_(B)
7.		%			Prevalence Index = B/A =	
			= Total Cover		Hydrophytic Vegetation Indicators:	
					Tryatophytic regetation material	
Lieve Christian	(Distains, CI)					
Herb Stratum	(Plot size: <u>5'</u> )				1 - Rapid Test for Hydrophytic Vegetation	
1. Poa compressa	(Plot size: <u>5'</u> )		<u> </u>	FACU	<ul> <li>1 - Rapid Test for Hydrophytic Vegetation</li> <li>2 - Dominance Test is &gt;50%</li> </ul>	
1. <u>Poa compressa</u> 2. <u>Daucus carota</u>	·,	30 %	Y	UPL		
1.       Poa compressa         2.       Daucus carota         3.       Agrostis stolonifera	·,	30 % 20 %	Y N	UPL FACW	□ 2 - Dominance Test is >50% □ 3 - Prevalence Index is $\leq 3.0^{1}$	
1.       Poa compressa         2.       Daucus carota         3.       Agrostis stolonifera         4.       Conyza canadensis	·,	30 % 20 % 20 %	Y N N	UPL FACW FACU	<ul> <li>2 - Dominance Test is &gt;50%</li> <li>3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate</li> </ul>	
<ol> <li>Poa compressa</li> <li>Daucus carota</li> <li>Agrostis stolonifera</li> <li>Conyza canadensis</li> <li>Verbascum thapsus</li> </ol>		30 % 20 % 20 % 5 %	Y N N N	UPL FACW FACU UPL	<ul> <li>□ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> </ul>	e
<ol> <li>Poa compressa</li> <li>Daucus carota</li> <li>Agrostis stolonifera</li> <li>Conyza canadensis</li> <li>Verbascum thapsus</li> <li>Leucanthemum vulgare</li> </ol>		30 %           20 %           20 %           5 %           5 %	Y N N N N	UPL FACW FACU UPL UPL	<ul> <li>2 - Dominance Test is &gt;50%</li> <li>3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>Problematic Hydrophytic Vegetation<sup>1</sup> (Expl.</li> </ul>	e ain)
<ol> <li>Poa compressa</li> <li>Daucus carota</li> <li>Agrostis stolonifera</li> <li>Conyza canadensis</li> <li>Verbascum thapsus</li> <li>Leucanthemum vulgare</li> <li>7.</li> </ol>		30 %           20 %           5 %           5 %           %	Y N N N N	UPL FACW FACU UPL UPL	<ul> <li>2 - Dominance Test is &gt;50%</li> <li>3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>Problematic Hydrophytic Vegetation<sup>1</sup> (Expl.</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must</li> </ul>	e ain)
1.       Poa compressa         2.       Daucus carota         3.       Agrostis stolonifera         4.       Conyza canadensis         5.       Verbascum thapsus         6.       Leucanthemum vulgare         7.		30 %           20 %           20 %           5 %           5 %           %	Y N N N N	UPL FACW FACU UPL UPL	<ul> <li>2 - Dominance Test is &gt;50%</li> <li>3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>Problematic Hydrophytic Vegetation<sup>1</sup> (Expl.</li> </ul>	e ain)
1.       Poa compressa         2.       Daucus carota         3.       Agrostis stolonifera         4.       Conyza canadensis         5.       Verbascum thapsus         6.       Leucanthemum vulgare         7.       8.         9.		30 %           20 %           5 %           5 %           %           %	Y N N N N	UPL FACW FACU UPL UPL	<ul> <li>2 - Dominance Test is &gt;50%</li> <li>3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>Problematic Hydrophytic Vegetation<sup>1</sup> (Expl.</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must</li> </ul>	e ain)
1.       Poa compressa         2.       Daucus carota         3.       Agrostis stolonifera         4.       Conyza canadensis         5.       Verbascum thapsus         6.       Leucanthemum vulgare         7.       8.         9.       10.		30 %           20 %           5 %           5 %           %           %           %           %           %	Y N N N	UPL FACW FACU UPL UPL	<ul> <li>2 - Dominance Test is &gt;50%</li> <li>3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>Problematic Hydrophytic Vegetation<sup>1</sup> (Expl. <sup>1</sup> Indicators of hydric soil and wetland hydrology mus present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> </ul>	e ain)
1.       Poa compressa         2.       Daucus carota         3.       Agrostis stolonifera         4.       Conyza canadensis         5.       Verbascum thapsus         6.       Leucanthemum vulgare         7.		30 %           20 %           5 %           5 %           %           %           %           %           %           %           %           %           %           %           %	Y N N N	UPL FACW FACU UPL UPL	<ul> <li>2 - Dominance Test is &gt;50%</li> <li>3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>Problematic Hydrophytic Vegetation<sup>1</sup> (Expl. <sup>1</sup> Indicators of hydric soil and wetland hydrology mus present, unless disturbed or problematic</li> </ul>	e ain) st be
1.       Poa compressa         2.       Daucus carota         3.       Agrostis stolonifera         4.       Conyza canadensis         5.       Verbascum thapsus         6.       Leucanthemum vulgare         7.		30 %           20 %           5 %           5 %           %           %           %           %           %           %           %           %           %           %           %	Y N N N	UPL FACW FACU UPL UPL	<ul> <li>2 - Dominance Test is &gt;50%</li> <li>3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>Problematic Hydrophytic Vegetation<sup>1</sup> (Expl.<sup>1</sup> Indicators of hydric soil and wetland hydrology muspresent, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of hydrone in the strate of the strate is a strate of the strate of</li></ul>	e lain) st be eight.
1.       Poa compressa         2.       Daucus carota         3.       Agrostis stolonifera         4.       Conyza canadensis         5.       Verbascum thapsus         6.       Leucanthemum vulgare         7.		30 %           20 %           5 %           5 %           %           %           %           %           %           %           %           %           %           %           %	Y N N N	UPL FACW FACU UPL UPL	<ul> <li>2 - Dominance Test is &gt;50%</li> <li>3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>Problematic Hydrophytic Vegetation<sup>1</sup> (Expl. <sup>1</sup> Indicators of hydric soil and wetland hydrology muspresent, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in</li> </ul>	e lain) st be eight.
1.       Poa compressa         2.       Daucus carota         3.       Agrostis stolonifera         4.       Conyza canadensis         5.       Verbascum thapsus         6.       Leucanthemum vulgare         7.       8.         9.       10.         11.       12.         Woody Vine Stratum	(Plot size: <u>30'</u> )	30 %       20 %       5 %       5 %       %       %       %       %       120 %	Y N N N 	UPL FACW FACU UPL UPL	<ul> <li>2 - Dominance Test is &gt;50%</li> <li>3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>Problematic Hydrophytic Vegetation<sup>1</sup> (Expl.<sup>1</sup> Indicators of hydric soil and wetland hydrology muspresent, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height (DBH), regardless of height (DBH), regardless than 3 in. D</li> </ul>	e ain) st be eight. /BH
1.       Poa compressa         2.       Daucus carota         3.       Agrostis stolonifera         4.       Conyza canadensis         5.       Verbascum thapsus         6.       Leucanthemum vulgare         7.       8.         9.       10.         11.       12.         Woody Vine Stratum         1.       1.	(Plot size: <u>30'</u> )	30 % 20 % 5 % 5 % % % % % % 120 %	Y N N N = Total Cover	UPL FACW FACU UPL UPL	<ul> <li>2 - Dominance Test is &gt;50%</li> <li>3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>Problematic Hydrophytic Vegetation<sup>1</sup> (Expl.<sup>1</sup> Indicators of hydric soil and wetland hydrology muspresent, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height (DBH), regardless of height (DBH), regardless of height (DBH), and greater than 3.28 ft (1 m) tall.</li> </ul>	e ain) st be eight. /BH
1.       Poa compressa         2.       Daucus carota         3.       Agrostis stolonifera         4.       Conyza canadensis         5.       Verbascum thapsus         6.       Leucanthemum vulgare         7.       8.         9.       10.         11.       12.         Woody Vine Stratum	(Plot size: <u>30'</u> )	30 %       20 %       5 %       5 %       %       %       %       %       120 %	Y N N N = Total Cover	UPL FACW FACU UPL UPL	<ul> <li>2 - Dominance Test is &gt;50%</li> <li>3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>Problematic Hydrophytic Vegetation<sup>1</sup> (Expl.<sup>1</sup> Indicators of hydric soil and wetland hydrology mus present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height (DBH), regardless of height (DBH), regardless of height (DBH), and greater than 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody) plants, regardless</li> </ul>	e lain) st be eight. BH rdless
1.       Poa compressa         2.       Daucus carota         3.       Agrostis stolonifera         4.       Conyza canadensis         5.       Verbascum thapsus         6.       Leucanthemum vulgare         7.       8.         9.       10.         11.       12.         Woody Vine Stratum         1.       1.	(Plot size: <u>30'</u> )	30 %       20 %       20 %       5 %       5 %       %       %       %       %       %       %       %       %       %       %       %       %       %       %       %       %	Y N N N = Total Cover	UPL FACW FACU UPL UPL	<ul> <li>2 - Dominance Test is &gt;50%</li> <li>3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>Problematic Hydrophytic Vegetation<sup>1</sup> (Expl.<sup>1</sup> Indicators of hydric soil and wetland hydrology muspresent, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height greater than 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody) plants, regardless than 3 in. 28 ft tall.</li> </ul>	e lain) st be eight. BH rdless

**Remarks** (include photo numbers here or on a separate sheet): Photograph C-13.

Profile Desc		o the de	-			r confirm	the absence of indicators.)	
Depth	Matrix	0/		Redox Fea		12	- -	Davisaria
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
<u>0-6</u> 6-12	2.5Y 4/4 10YR 4/6	<u>    100    </u> 100					Silt Loam Silt Loam	
12-20	10YR 5/6	70	2.5Y 5/3	30	C	M	Clay Loam	
12-20	10111 3/0	- 10	2.01 0/0					
	ncentration D=Denk	ation Pl	 M=Reduced Matrix, N	/S=Mask	d Sand Grai		<sup>2</sup> Location: PL=Pore Lining, I	M=Matrix
				IS-IVIASKE		15		
Hydric Soil I							Indicators for Problematic Hydric	
Histosol (A			Dark Surface (S				2 cm Muck (A10) (LRR K, L, ML	
Histic Epip			Polyvalue Below				Coast Prairie Redox (A16) (LRR	
Black Hist			Thin Dark Surfac			149B)	5 cm Mucky Peat or Peat (S3) (L	.RR K, L, R)
			Loamy Mucky M				Dark Surface (S7) (LRR K, L)	
Stratified I		( )			)		Polyvalue Below Surface (S8) (L	
	Below Dark Surface (	(A11)	Depleted Matrix				Thin Dark Surface (S9) (LRR, K,	
	k Surface (A12)		Redox Dark Surf		-		☐ Iron-Manganese Masses (F12) (	
-	icky Mineral (S1)		Depleted Dark S		()		Piedmont Floodplain Soils (F19)	
	eyed Matrix (S4)		Redox Depression	ons (F8)			Mesic Spodic (TA6) (MLRA 144)	A, 145, 149B)
Sandy Re							Red Parent Material (F21)	2)
Stripped N	Matrix (S6)						Very Shallow Dark Surface (TF1 Other (Evaluation in Remarka)	2)
<sup>3</sup> ladiaatana af	hudron hudio un mototi					liature al a	Other (Explain in Remarks)	
		on and v	wetland hydrology mu	ist be pres	sent, uniess c	listurbed c		
	ayer (if observed):		Denth (in the co)				Hydric Soil Present?	
Туре:			Depth (inches):				🗌 Yes 🖾 No	
Remarks: N	lo hydric soil indicato	rs are p	resent.					

Project/Site: Lake Avenue Subs	station Project		City/County:	Lorain County	Sampling Date: 7/11/2012
Applicant/Owner: American Tra	nsmission Syst	ems, Inc.		State: O	H Sampling Point: SP-18
Investigator(s): <u>G. Shaw</u>			Section,	Township, Range:	T6N, R17W
Landform (hillslope, terrace, etc.)	hillslope		Local relief (conca	ve, convex, none):	convex Slope (%): 2
Subregion (LRR or MLRA):	₹R	Lat: 41.4121	141 Lo	ong: <u>-82.120135</u>	Datum: NAD 83
Soil Map Unit Name: Quarries	i			NW	I Classification: Upland
Are climate/hydrologic conditions	on the site typic	cal for this time	e of year? 🛛 🛛 Yes	□ No (If no, e	explain in Remarks)
Vege	tation Soil	Hydrology			
Significantly Disturbed?				al Circumstances" p	
Naturally Problematic?				eeded, explain any ansv	vers in Remarks)
SUMMARY OF FINDINGS – A	tach site ma	p showing s	ampling point loc	ations, transects,	important features, etc.
	Ye		Remarks: Soil was o	disturbed during trans	smission line construction.
Hydrophytic Vegetation Present?					
Hydric Soil Present?					
Wetland Hydrology Present?		_			
Is the Sampled Area within a We	etland?	$\boxtimes$			
HYDROLOGY					
Wetland Hydrology Indicators:				Seco	ondary Indicators (minimum of two required)
Primary Indicators (minimum of or					urface Soil Cracks (B6)
Surface Water (A1)		U Water-Stair	ned Leaves (B9)		rainage Patterns (B10)
High Water Table (A2)		Aquatic Fa	una (B13)	□ M	oss Trim Lines (B16)
Saturation (A3)		Marl Depos	sits (B15)		ry-Season Water Table (C2)
☐ Water Marks (B1)			Sulfide Odor (C1)		rayfish Burrows (C8)
Sediment Deposits (B2)			hizospheres on Living	Roots (C3)	aturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)			of Reduced Iron (C4)		tunted or Stressed Plants (D1)
☐ Algal Mat or Crust (B4)			n Reduction in Tilled S	Soils (C6)	eomorphic Position (D2)
☐ Iron Deposits (B5) —		Thin Muck	( )		hallow Aquitard (D3)
Inundation Visible on Aerial Im	••••	Other (Exp	lain in Remarks)	□ M	icrotopographic Relief (D4)
Sparsely Vegetated Concave S	Surface (B8)			□ F/	AC-Neutral Test (D5)
Field Observations:	Yes No	Depth (inches):	Describe Record inspections, etc.)		ge, monitoring well, aerial photos, previous
Surface Water Present?		<u>(Inoneo).</u>	inspections, etc.)	, il avaliable.	
Water Table Present?					
Saturation Present?					
(includes capillary fringe)					
Wetland Hydrology Present?					
Remarks: No wetland hydrology i	ndicators are p	resent.			

Sampling Point: SP-18

-				
	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot siz	e: <u>30'</u> ) <u>% Cover</u>	Species?	Status	Number of Dominant Species that are OBL, FACW, or FAC: 4 (A
1. Liriodendron tulipifera		Y		
2. Acer rubrum	40 %		FAC	Total Number of Dominant Species Across All Strata: 6 (B
3				,
4	<u>%</u>			Percent of Dominant Species that are OBL, FACW, or FAC: <u>67%</u> (A
5	%		<u> </u>	
6	%			Prevalence Index worksheet:
7				Total % Cover of:Multiply by:
	100 %	= Total Cover	•	OBL species % x 1 =
Sapling/Shrub Stratum (Plot siz	e: <u>15'</u> )			
1. Carpinus caroliniana	40 %	Y	FAC	
2. Tilia americana		Y	FACU	FAC species% x 3 =0
3.				FACU species% x 4 =
4.	%			UPL species% x 5 =0
5	%			Column Totals:% (A)(
6	%			
7	%			Prevalence Index = B/A =
	70 %=	= Total Cover		Hydrophytic Vegetation Indicators:
Herb Stratum (Plot si	ze: <u>5'</u> )			1 - Rapid Test for Hydrophytic Vegetation
1. Toxicodendron radicans	20 %	Y	FAC	☑ 2 - Dominance Test is >50%
2. Carpinus caroliniana		Y	FAC	 □ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
3. Polygonatum biflorum	5 %	Ν	FACU	
4	%			4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate
5	%			sheet)
6	%	. <u> </u>		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
7	%			<sup>1</sup> Indicators of hydric soil and wetland hydrology must b
8	70			present, unless disturbed or problematic
9	%			
10	%			Definitions of Vegetation Strata:
11	%			Tree – Woody plants 3 in. (7.6 cm) or more in
12	%			diameter at breast height (DBH), regardless of heigh
	35 % =	= Total Cover		Sapling/Shrub – Woody plants less than 3 in. DBH
Woody Vine Stratum (Plot size	e: <u>30'</u> )			and greater than 3.28 ft (1 m) tall.
1	%			Herb – All herbaceous (non-woody) plants, regardle
2.				of size, and woody plants less than 3.28 ft tall.
3.	%			Woody vine – All woody vines greater than 3.28 ft
4.	%			height.
		= Total Cover		Hydrophytic Vegetation Present? ⊠ Yes □ N

**Remarks** (include photo numbers here or on a separate sheet): Photograph C-14.

SOIL							Sampling Point: <u>SP-18</u>		
Profile Des	scription: (Describe to	the de	pth needed to docu	ment the	indicator o	r confirm t	the absence of indicators.)		
Depth	Matrix		•	Redox Fea			,		
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	- Texture	Remarks	
0-6	10YR 3/2	100					Silt Loam		
			·						
<sup>1</sup> Type: C=0	Concentration, D=Depleti	ion, RN	/I=Reduced Matrix, M	S=Maske	d Sand Grai	ns	<sup>2</sup> Location: PL=Pore Lining, N	/I=Matrix	
Hydric Soi	il Indicators:						Indicators for Problematic Hydric	Soils <sup>3</sup> :	
Histoso	l (A1)		Dark Surface (S7	7) (LRR R	, MLRA 149	B)	2 cm Muck (A10) (LRR K, L, MLI	RA 149B)	
	pipedon (A2)		Polyvalue Below	, ,			Coast Prairie Redox (A16) (LRR	,	
Black H			Thin Dark Surfac				☐ 5 cm Mucky Peat or Peat (S3) (L		
Hydroge	en Sulfide (A4)		Loamy Mucky Mi	. , .		,	Dark Surface (S7) (LRR K, L)		
☐ Stratifie	d Layers (A5)		Loamy Gleyed M	latrix (F2)			Polyvalue Below Surface (S8) (L	<b>RR, K, L</b> )	
	d Below Dark Surface (A	.11)	Depleted Matrix (				Thin Dark Surface (S9) (LRR, K, L)		
Thick D	ark Surface (A12)		Redox Dark Surf	ace (F6)			Iron-Manganese Masses (F12) (I	_RR, K, L)	
Sandy N	Mucky Mineral (S1)		Depleted Dark S	urface (F7	<b>'</b> )		Piedmont Floodplain Soils (F19)	(MLRA 149B)	
Sandy C	Gleyed Matrix (S4)		Redox Depressio	ons (F8)			Mesic Spodic (TA6) (MLRA 144A	A, 145, 149B)	
Sandy F	Redox (S5)						Red Parent Material (F21)		
Stripped	d Matrix (S6)						Ury Shallow Dark Surface (TF12	2)	
							Other (Explain in Remarks)		
<sup>3</sup> Indicators	of hydrophytic vegetatior	n and w	vetland hydrology mu	st be pres	ent, unless	disturbed o	r problematic		
Restrictive	e Layer (if observed):						Hydric Soil Present?		
Туре:	Gravel		Depth (inches):	6			☐ Yes ⊠ No		

Remarks: No hydric soil indicators are present.

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Lake Avenue Subs	station Project		City/County: L	orain County	Sampling Date: 7/11/2012
Applicant/Owner: American Tra	nsmission Sys	tems, Inc.		State: OH	Sampling Point: SP-19
Investigator(s): <u>G. Shaw</u>			Section,	Township, Range: <u>T6I</u>	N, R17W
Landform (hillslope, terrace, etc.)	hillslope		Local relief (concav	ve, convex, none): <u>con</u>	vex Slope (%): 2
Subregion (LRR or MLRA):	RR	Lat: 41.4132	255 Lo	ng: <u>-82.119167</u>	Datum: NAD 83
Soil Map Unit Name: Quarries	i			NWI Cla	ssification: Upland
Are climate/hydrologic conditions	on the site typi	cal for this time	e of year? 🛛 🛛 Yes	□ No (If no, expla	in in Remarks)
Vege	tation Soil	Hydrology			<b>— —</b>
Significantly Disturbed?				al Circumstances" preser	
Naturally Problematic?			(1) 118	eded, explain any answers i	n Remarks)
SUMMARY OF FINDINGS – A	tach site ma	p showing s	ampling point loca	tions, transects, imp	oortant features, etc.
	Ye	s No	Remarks:		
Hydrophytic Vegetation Present?	$\boxtimes$				
Hydric Soil Present?					
Wetland Hydrology Present?					
Is the Sampled Area within a We	etland?				
HYDROLOGY					
Wetland Hydrology Indicators:				<u>Seconda</u>	ry Indicators (minimum of two required)
Primary Indicators (minimum of or	ne required; ch	eck all that app	<u>oly)</u>	🗌 Surfac	e Soil Cracks (B6)
Surface Water (A1)		U Water-Stai	ned Leaves (B9)	🗌 Draina	ge Patterns (B10)
High Water Table (A2)		Aquatic Fa	una (B13)	Moss 🗌	Trim Lines (B16)
Saturation (A3)		Marl Depos	sits (B15)	🗌 Dry-Se	eason Water Table (C2)
Water Marks (B1)		Hydrogen S	Sulfide Odor (C1)	Crayfis	sh Burrows (C8)
Sediment Deposits (B2)		Oxidized R	hizospheres on Living	Roots (C3)	tion Visible on Aerial Imagery (C9)
Drift Deposits (B3)		Presence of	of Reduced Iron (C4)	🗌 Stunte	d or Stressed Plants (D1)
☐ Algal Mat or Crust (B4)			n Reduction in Tilled Se	oils (C6) 🛛 🗌 Geom	orphic Position (D2)
☐ Iron Deposits (B5)		Thin Muck		🗌 Shallo	w Aquitard (D3)
Inundation Visible on Aerial Im		Other (Exp	lain in Remarks)		opographic Relief (D4)
Sparsely Vegetated Concave S	Surface (B8)			SAC-N	leutral Test (D5)
Field Observations:	Yes No	Depth (inches):	Describe Recorde		nonitoring well, aerial photos, previous
Surface Water Present?		<u>(inches).</u>	inspections, etc.),	li avaliable.	
Water Table Present?					
Saturation Present?					
(includes capillary fringe)					
Wetland Hydrology Present?					
Remarks: Wetland hydrology indi	cator D5 is pre	sent.			

## **VEGETATION – Use scientific names of plants**

Sampling Point: SP-19

5. $\frac{7_0}{9}$ <t< th=""><th>0 0 0</th></t<>	0 0 0
1.Populus deltoides40 %YFAC2. $\frac{40 \%}{\%}$ YFAC3. $\frac{\%}{\%}$ $\frac{\%}{\%}$ 4. $\frac{\%}{\%}$ $\frac{\%}{\%}$ 5. $\frac{\%}{\%}$ $\frac{\%}{\%}$ 6. $\frac{\%}{\%}$ $\frac{\%}{\%}$ 7. $\frac{\%}{\%}$ $\frac{\%}{\%}$ 8. $\frac{\%}{\%}$ $\frac{100\%}{\%}$ 1.Cornus drummondii $\frac{60 \%}{5}$ Y2.Acer saccharinum $\frac{5 \%}{\%}$ N3. $\frac{\%}{\%}$ $\frac{\%}{\%}$ $\frac{\%}{\%}$ 4. $\frac{\%}{\%}$ $\frac{\%}{\%}$ $\frac{\%}{\%}$ 3. $\frac{\%}{\%}$ $\frac{\%}{\%}$ $\frac{\%}{\%}$ 4. $\frac{\%}{\%}$ $\frac{\%}{\%}$ $\frac{\%}{\%}$ 5. $\frac{\%}{\%}$ $\frac{\%}{\%}$ $\frac{\%}{\%}$ 6. $\frac{\%}{\%}$ $\frac{\%}{\%}$ $\frac{\%}{\%}$ 6. $\frac{\%}{\%}$ $\frac{\%}{\%}$ $\frac{\%}{\%}$	<u>5</u> (B) 00% (A/B / by: 0 0 0
1.       Populas denotes       40 %       1       1 KC         2. $\frac{9}{6}$ $\frac{9}{6}$ $\frac{9}{6}$ $\frac{9}{6}$ 3. $\frac{9}{6}$ $\frac{9}{6}$ $\frac{9}{6}$ $\frac{9}{6}$ 5. $\frac{9}{6}$ $\frac{9}{6}$ $\frac{9}{6}$ $\frac{100}{6}$ 7. $\frac{9}{6}$ $\frac{9}{6}$ $\frac{100}{6}$ 7. $\frac{9}{6}$ $\frac{9}{6}$ $\frac{100}{6}$ 9. $\frac{40\%}{6}$ $\frac{9}{6}$ $\frac{100}{6}$ 9. $\frac{100}{6}$ $\frac{100}{6}$ $\frac{100}{6}$ 9. $\frac{100}{6}$ $\frac{100}{6}$ $\frac{100}{6}$ 9. $\frac{100}{6}$ $\frac{100}{6}$ $\frac{100}{6}$ 9. $\frac{100}{6}$ $\frac{100}{6}$ $\frac{100}{6}$ $\frac{100}{6}$ 9. $\frac{100}{6}$ $\frac{100}{$	<u>5</u> (B) 00% (A/B / by: 0 0 0
3.	00% (A/B / by: 0 0 0
3.	00% (A/B / by: 0 0 0
4.       9%       Percent of Dominant Species         5.       %	/ by: 0 0 0
S. $\frac{9}{6}$	/ by: 0 0 0
7. $\frac{9}{40\%}$ Total % Cover of:       Multiply         Sapling/Shrub Stratum       (Plot size: 15')       OBL species       % x1 =         1.       Cornus drummondii $60\%$ Y       FAC         2.       Acer saccharinum $5\%$ N       FACW         3. $\%$ $\%$ $\%$ $FACW$ 4. $\%$ $\%$ $FACU$ species $\%$ x4 =         5. $\%$ $\%$ $Column Totals:$ $0\%$ (A)	0 0 0
40 % = Total Cover         Multiply         Sapling/Shrub Stratum       (Plot size: 15')         1.       Cornus drummondii       60 %       Y       FAC         2.       Acer saccharinum       5%       N       FACW         3.       %	0 0 0
Sapling/Shrub Stratum       (Plot size: 15')         1.       Cornus drummondii       60 %       Y       FAC         2.       Acer saccharinum       5 %       N       FACW         3.       %       —       —         4.       %       —       —         5.       %       —       —         6.       %       —       —	0 0 0
Sapling/Shrub Stratum       (Plot size: 15')         1.       Cornus drummondii       60 %       Y       FAC         2.       Acer saccharinum       5 %       N       FACW         3.       %	0
1.       Cornus drummondii       60 %       Y       FAC         2.       Acer saccharinum       5 %       N       FACW         3.       %	0
2. Acer saccharinum       5 %       N       FACW       FAC species       % x 3         3	
3.       %	0
3.       78       78       78         4.       %       78       98         5.       %       78       98         6.       %       78       78	0
5.            6.     %      Column Totals:	
6. %	
	<u> </u>
7 % Prevalence Index = B/A =	
65 % = Total Cover Hydrophytic Vegetation Indicators:	
Herb Stratum     (Plot size: 5')     1 - Rapid Test for Hydrophytic Vegeta	ation
1. <u>Equisetum hyemale</u> <u>50 %</u> <u>Y</u> <u>FAC</u> <u>Z</u> - Dominance Test is >50%	
2. <u>Toxicodendron radicans</u> <u>30 %</u> <u>Y</u> <u>FAC</u> <u>3 - Prevalence Index is ≤3.0</u> <sup>1</sup>	
3. Lysimachia nummularia 20 % Y FACW 4 - Morphological Adaptations <sup>1</sup> (Provid	le
4 70 supporting data in Remarks or on a set	parate
5 % sheet)	
6 Problematic Hydrophytic Vegetation <sup>1</sup>	(Explain)
7 % <sup>1</sup> Indicators of hydric soil and wetland hydrolog	y must be
8 % present, unless disturbed or problematic	
9.         %         Definitions of Vegetation Strata:           10.         %	
11.       %	
	-
Image: Non-stratum       Image: Non-stratum       Sapling/Shrub – Woody plants less than 3 and greater than 3.28 ft (1 m) tall.	in. DBH
1 % Herb – All herbaceous (non-woody) plants,	regardless
1	0
2 70	3.28 ft in
2.         %	3.28 ft in
2.     70       3.     %       Woody vine – All woody vines greater than	

**Remarks** (include photo numbers here or on a separate sheet): Photograph C-15.

Profile Desc	ription: (Describe to	o the d	epth needed to docu	ment the	indicator o	<sup>r</sup> confirm t	the absence of indicators.)		
Depth	Matrix		F	Redox Fe	atures				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-4	10YR 3/1	100					Silt Loam		
4-6	10YR 4/2	98	5YR 4/6	2	С	М	Silt Loam		
6-20	10YR 4/3	100					Silt Loam		
				. <u></u>					
					·				
					·				
					·				
					·			<u></u>	
<sup>1</sup> Type: C=Co	ncentration. D=Deple	tion. RI	M=Reduced Matrix, M	IS=Maske	d Sand Grai	าร	<sup>2</sup> Location: PL=Pore Lining,	M=Matrix	
Hydric Soil I							Indicators for Problematic Hydric		
Histosol (A			Dark Surface (S7	7) (LRR R	. MLRA 149	<b>B</b> )	2 cm Muck (A10) (LRR K, L, ML		
Histic Epip	,		Polyvalue Below	, ,			Coast Prairie Redox (A16) (LRR		
Black Hist			Thin Dark Surfac						
Hydrogen	. ,		Loamy Mucky M				<ul> <li>☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)</li> <li>☐ Dark Surface (S7) (LRR K, L)</li> </ul>		
Stratified I	. ,		Loamy Gleyed N				Polyvalue Below Surface (S8) (LRR, K, L)		
	Below Dark Surface (/	A11)	Depleted Matrix				☐ Thin Dark Surface (S9) (LRR, K, L)		
-	(Surface (A12)	,	Redox Dark Surf				☐ Iron-Manganese Masses (F12) (LRR, K, L)		
	cky Mineral (S1)		Depleted Dark S		7)		☐ Piedmont Floodplain Soils (F19) (MLRA 149B)		
-	eyed Matrix (S4)		Redox Depression		.,		Mesic Spodic (TA6) (MLRA 144A, 145, 149B)		
Sandy Re				5110 (1 0)			Red Parent Material (F21)		
Stripped N							Very Shallow Dark Surface (TF12)		
							Other (Explain in Remarks)		
<sup>3</sup> Indicators of	hydrophytic ycaptotic	n and i	wetland hydrology mu	ot bo prov	aant unlaad	liaturbad a	,		
		on and v	wettand nydrology mu	st be pres	sent, unless t	isturbed o	ſ		
	ayer (if observed):						Hydric Soil Present?		
Туре:			Depth (inches):	-			🗌 Yes 🖾 No		
Remarks: N	o hydric soil indicators	s are pr	resent.						

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Lake Avenue Sub	station Project		City/County:	Lorain County	Sampling Date: 7/11/2012
Applicant/Owner: American Tra	ansmission Sys	tems, Inc.		State:	OH Sampling Point: SP-20
Investigator(s): <u>G. Shaw</u>			Section	n, Township, Range	e: <u>T6N, R17W</u>
Landform (hillslope, terrace, etc.)	depression		Local relief (conc	ave, convex, none)	: <u>concave</u> Slope (%): <u>0</u>
Subregion (LRR or MLRA): LR	R R	Lat: 41.4128	351 L	ong: <u>-82.12168</u>	3 Datum: NAD 83
Soil Map Unit Name: Quarries	3			I	WI Classification: PFO (W-9)
Are climate/hydrologic conditions	on the site typi	cal for this time	e of year? 🛛 🛛 Yes	s □No (If n	o, explain in Remarks)
Vege	etation Soil	Hydrology			
0 ,				nal Circumstances	
Naturally Problematic?			(11 1	needed, explain any a	inswers in Remarks)
SUMMARY OF FINDINGS – A	ttach site ma	ap showing s	ampling point loo	cations, transec	ts, important features, etc.
	Ye		Remarks: Soil at th	is location was hig	hly disturbed during quarry operations.
Hydrophytic Vegetation Present?					
Hydric Soil Present?					
Wetland Hydrology Present?	Notional 2				
Is the Sampled Area within a W	etland?				
HYDROLOGY					
Wetland Hydrology Indicators:				<u>S</u>	econdary Indicators (minimum of two require
Primary Indicators (minimum of o	<u>ne required; ch</u>				] Surface Soil Cracks (B6)
Surface Water (A1)			ned Leaves (B9)		Drainage Patterns (B10)
High Water Table (A2)		Aquatic Fa			Moss Trim Lines (B16)
Saturation (A3)		Marl Depos			Dry-Season Water Table (C2)
Water Marks (B1)			Sulfide Odor (C1)		Crayfish Burrows (C8)
Sediment Deposits (B2)			hizospheres on Livin		Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)			of Reduced Iron (C4) n Reduction in Tilled		Stunted or Stressed Plants (D1)
☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5)				· · · ·	Geomorphic Position (D2)
Inundation Visible on Aerial Im	agery (B7)		lain in Remarks)		] Shallow Aquitard (D3)
Sparsely Vegetated Concave					Microtopographic Relief (D4)
		Donth			FAC-Neutral Test (D5)
Field Observations:	Yes No	Depth (inches):	inspections, etc.		auge, monitoring well, aerial photos, previous
Surface Water Present?				,.	
Water Table Present?	$\Box$				
Saturation Present?	$\Box$				
(includes capillary fringe) Wetland Hydrology Present?					
		D0 and D0 am			
Remarks: Wetland hydrology ind	ICators B1, B8,	B9, and D2 are	e present.		

## **VEGETATION – Use scientific names of plants**

Sampling Point: SP-20

	•					
		Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum	(Plot size: <u>30'</u> )	% Cover	Species?	Status	Number of Dominant Species that are OBL, FACW, or FAC:	2 (A)
1. Populus deltoides			Y	FAC		<u> </u>
				FAC	Total Number of Dominant Species Across All Strata:	3 (B)
3		%				<u> </u>
4		%_			Percent of Dominant Species that are OBL, FACW, or FAC:	100% (A/B
5						(
6					Prevalence Index worksheet:	
7					Total % Cover of:	Multiply by:
		100 % =	= Total Cover	·		
Sapling/Shrub Stratum	(Plot size: <u>15'</u> )					x 1 =
	(1 101 0120. <u>10</u> )	<b>22</b> 4/			FACW species%	x 2 =0
			Y		FAC species %	x 3 = 0
2		%				x 4 = 0
3		%				
4		%				x 5 = <u>0</u>
5				<u> </u>	Column Totals: 0%	(A) <u>0</u> (B)
6		<u>%</u> %			Prevalence Index = B/A =	
7						
		20 %	= Total Cover		Hydrophytic Vegetation Indic	ators:
Herb Stratum	(Plot size: <u>5'</u> )				1 - Rapid Test for Hydrophy	tic Vegetation
1		%			☑ 2 - Dominance Test is >50%	6
2		%			3 - Prevalence Index is ≤3.0	ר <sup>1</sup>
3		%				
4		%			4 - Morphological Adaptatic supporting data in Remarks	
5		%			sheet)	
6		%	<u> </u>		Problematic Hydrophytic Ve	egetation <sup>1</sup> (Explain)
7		%			<sup>1</sup> Indicators of hydric soil and wetlar	nd hydrology must be
8		%			present, unless disturbed or problem	
9		%				
0		%			Definitions of Vegetation Stra	ata:
l1		%			Tree – Woody plants 3 in. (7.6 cr	,
12		%			diameter at breast height (DBH),	regardless of height.
			= Total Cover		Sapling/Shrub – Woody plants I	ess than 3 in. DBH
Woody Vine Stratum	(Plot size: <u>30'</u> )				and greater than 3.28 ft (1 m) tall	
1		%			Herb – All herbaceous (non-woo	dy) plants, regardless
2.		%			of size, and woody plants less th	
3.		%			Woody vine – All woody vines g	reater than 3.28 ft in
4.		%			height.	
···			= Total Cover			
		70			Hydrophytic Vegetation Preser	it? 🛛 Yes 🗌 No

**Remarks** (include photo numbers here or on a separate sheet): Photograph C-16.

SOIL				Sampling Point: SP-20		
Profile Descr	iption: (Describe to	the de	pth needed to document the indicator or confirm	the absence of indicators.)		
Depth	Matrix		Redox Features	_		
(inches)	Color (moist)	%	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	Texture	Remarks	
0-8	10YR 6/1	100		Clay Loam		
	·					
<sup>1</sup> Type: C=Co	ncentration, D=Deplet	ion, RN	/I=Reduced Matrix, MS=Masked Sand Grains	<sup>2</sup> Location: PL=Pore Lining, N	I=Matrix	
Hydric Soil Ir	ndicators:			Indicators for Problematic Hydric S	Soils <sup>3</sup> :	
Histosol (A	(1)		Dark Surface (S7) (LRR R, MLRA 149B)	🗌 2 cm Muck (A10) ( <b>LRR K, L, ML</b> F	RA 149B)	
Histic Epipedon (A2)			Polyvalue Below Surface (S8) (MLRA 147, 148)	Coast Prairie Redox (A16) (LRR K, L, R)		
Black Histi	c (A3)		☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)		
Hydrogen	Sulfide (A4)		Loamy Mucky Mineral (F1) (LRR K, L)	Dark Surface (S7) (LRR K, L)		
Stratified L	ayers (A5)		Loamy Gleyed Matrix (F2)	Polyvalue Below Surface (S8) (LRR, K, L)		
Depleted E	Below Dark Surface (A	.11)	Depleted Matrix (F3)	☐ Thin Dark Surface (S9) (LRR, K, L)		
Thick Dark	Surface (A12)		Redox Dark Surface (F6)	☐ Iron-Manganese Masses (F12) (LRR, K, L)		
Sandy Mu	cky Mineral (S1)		Depleted Dark Surface (F7)	Piedmont Floodplain Soils (F19) (MLRA 149B		
Sandy Gle	yed Matrix (S4)		Redox Depressions (F8)	Mesic Spodic (TA6) (MLRA 144A, 145, 149B)		
Sandy Red	dox (S5)			Red Parent Material (F21)		
Stripped N	latrix (S6)			Very Shallow Dark Surface (TF12)		
				Other (Explain in Remarks)		
<sup>3</sup> Indicators of	hydrophytic vegetatior	n and w	vetland hydrology must be present, unless disturbed o	or problematic		
	ayer (if observed):			Hydric Soil Present?		
Restrictive L			Depth (inches): 8	🖾 Yes 🔲 No		

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Lake Avenue Subs	station Project		City/County:	Lorain County	Sampling Da	ate: 7/11/2012
Applicant/Owner: American Tra	Insmission Sys	tems, Inc.		State:	OH Samplir	ng Point: <u>SP-21</u>
Investigator(s): <u>G. Shaw</u>			Sectio	n, Township, Rang	e: T6N, R17W	
Landform (hillslope, terrace, etc.)	hillslope		Local relief (conc	ave, convex, none	): <u>none</u> S	Slope (%): 0
Subregion (LRR or MLRA):	R	Lat: 41.4130	076	Long: <u>-82.12142</u>	7 Datum:	NAD 83
Soil Map Unit Name: Quarries	3				NWI Classification: Up	and
Are climate/hydrologic conditions	on the site typi	cal for this time	e of year? 🛛 🛛 Ye	s □No (If I	no, explain in Remarks)	
Vege	tation Soil	Hydrology				
		´□ ĭ	Are "Nor	mal Circumstance	s" present? 🛛 Yes	🗌 No
Naturally Problematic?			(If	needed, explain any	answers in Remarks)	
SUMMARY OF FINDINGS - A	ttach site ma	ap showing s	ampling point lo	cations, transe	cts, important feature	∋s, etc.
	Ye	es No	Remarks: Soils are	e highy disturbed fi	om quarry operations.	
Hydrophytic Vegetation Present?						
Hydric Soil Present?						
Wetland Hydrology Present?						
Is the Sampled Area within a W	etland?					
HYDROLOGY						
Wetland Hydrology Indicators:				<u>,</u>	Secondary Indicators (min	nimum of two required)
Primary Indicators (minimum of or	ne required; ch	eck all that app	<u>oly)</u>	Γ	] Surface Soil Cracks (B	6)
Surface Water (A1)		U Water-Stai	ned Leaves (B9)	Γ	] Drainage Patterns (B1	0)
High Water Table (A2)		Aquatic Fa	una (B13)	C	] Moss Trim Lines (B16)	)
Saturation (A3)		Marl Depos	sits (B15)	Γ	] Dry-Season Water Tab	ole (C2)
Water Marks (B1)		Hydrogen S	Sulfide Odor (C1)	C	Crayfish Burrows (C8)	
Sediment Deposits (B2)		Oxidized R	hizospheres on Livir	ng Roots (C3)	] Saturation Visible on A	erial Imagery (C9)
Drift Deposits (B3)		Presence of	of Reduced Iron (C4)	) [	] Stunted or Stressed PI	ants (D1)
Algal Mat or Crust (B4)		Recent Iron	n Reduction in Tilled	Soils (C6)	Geomorphic Position (I	D2)
Iron Deposits (B5)		Thin Muck	Surface (C7)	Γ	Shallow Aquitard (D3)	
Inundation Visible on Aerial Im	agery (B7)	Other (Exp	lain in Remarks)	Γ	] Microtopographic Relie	⊧f (D4)
Sparsely Vegetated Concave S	Surface (B8)			E	] FAC-Neutral Test (D5)	
Field Observations:	Yes No	Depth (inches):	Describe Recor inspections, etc		gauge, monitoring well, a	erial photos, previous
Surface Water Present?				,,		
Water Table Present?						
Saturation Present?						
(includes capillary fringe)						
Wetland Hydrology Present?						
Remarks: No wetland hydrology i	indicators are p	present.				

## **VEGETATION – Use scientific names of plants**

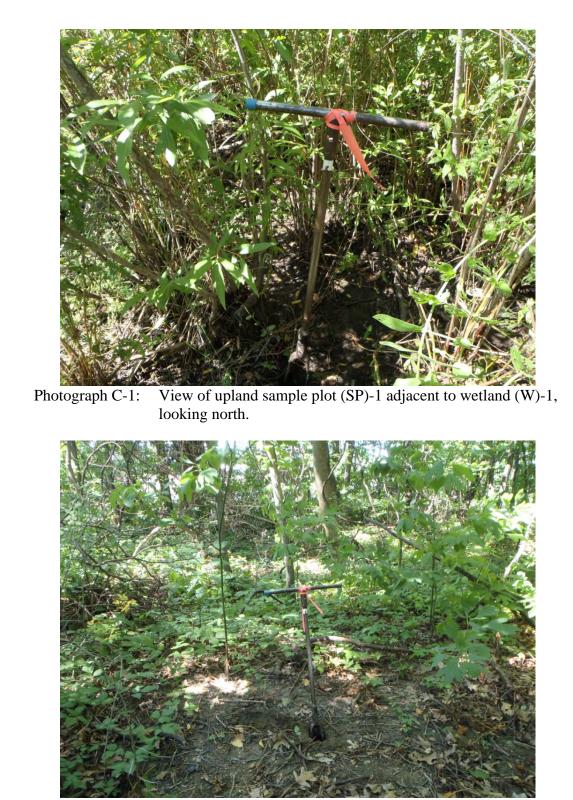
Sampling Point: SP-21

		Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	(Plot size: <u>30'</u> )		Species?	Status	Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)
1. Liriodendron tulipifera			<u>Y</u>		
2. <u>Acer rubrum</u>		40 %			Total Number of DominantSpecies Across All Strata:5 (B)
3. Fraxinus americana		10 %	<u>N</u>	FACU	Percent of Dominant Species
4 5		<u>%</u>			that are OBL, FACW, or FAC:40% (A/B)
6.		%			
7.		%			Prevalence Index worksheet:
			= Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum	(Plot size: 15')				OBL species% x 1 =0
	(Plot size: <u>15'</u> )				FACW species% x 2 =0
			Y		FAC species% x 3 =0
2		%			FACU species % x 4 = 0
3 4		%			UPL species% x 5 =
5.		%		·	Column Totals: <u>0</u> % (A) <u>0</u> (B)
6.		%			
		%			Prevalence Index = B/A =
7		70			
7		60 % =	= Total Cover		Hydrophytic Vegetation Indicators:
7	(Plot size: <u>5'</u> )		Total Cover		Hydrophytic Vegetation Indicators:
Herb Stratum		60 % =	= Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum 1 Toxicodendron radicans		<u>60 %</u> = 20 %	= Total Cover	FAC	<ul> <li>1 - Rapid Test for Hydrophytic Vegetation</li> <li>2 - Dominance Test is &gt;50%</li> </ul>
Herb Stratum		60 % =	= Total Cover	FAC FACU	1 - Rapid Test for Hydrophytic Vegetation
<u>Herb Stratum</u> 1. <u>Toxicodendron radicans</u> 2. <u>Rosa multiflora</u>		60 % = 	= Total Cover 	FAC FACU FACU	<ul> <li>☐ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☐ 2 - Dominance Test is &gt;50%</li> <li>☐ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☐ 4 - Morphological Adaptations<sup>1</sup> (Provide</li> </ul>
Herb Stratum         1.       Toxicodendron radicans         2.       Rosa multiflora         3.       Quercus rubra         4.       Lonicera tatarica	(Plot size: <u>5'</u> )	60 % = 20 % 20 % 10 %	= Total Cover 	FAC FACU FACU FACU	<ul> <li>☐ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☐ 2 - Dominance Test is &gt;50%</li> <li>☐ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> </ul>
Herb Stratum         1.       Toxicodendron radicans         2.       Rosa multiflora         3.       Quercus rubra         4.       Lonicera tatarica         5.	(Plot size: <u>5'</u> )	60 % = 20 % 20 % 10 % %	= Total Cover <u>Y</u> <u>N</u> <u>N</u>	FAC FACU FACU FACU	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>□ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> </ul>
Herb Stratum         1.       Toxicodendron radicans         2.       Rosa multiflora         3.       Quercus rubra         4.       Lonicera tatarica         5.	(Plot size: <u>5'</u> )	60 % = 20 % 20 % 10 % 10 % %	= Total Cover <u>Y</u> <u>N</u> <u>N</u>	FAC FACU FACU FACU	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>□ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> </ul>
Herb Stratum         1.       Toxicodendron radicans         2.       Rosa multiflora         3.       Quercus rubra         4.       Lonicera tatarica         5.	(Plot size: <u>5'</u> )	<u>60 %</u> <u>20 %</u> <u>10 %</u> <u>%</u> <u>%</u> <u>%</u>	= Total Cover <u>Y</u> <u>Y</u> <u>N</u> 	FAC FACU FACU FACU	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>□ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> </ul>
Herb Stratum         1.       Toxicodendron radicans         2.       Rosa multiflora         3.       Quercus rubra         4.       Lonicera tatarica         5.	(Plot size: <u>5'</u> )	<u>60 %</u> <u>20 %</u> <u>10 %</u> <u>10 %</u> <u>%</u> <u>%</u> <u>%</u>	= Total Cover <u>Y</u> <u>N</u> <u>N</u> <u>N</u>	FACU FACU FACU	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>□ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> </ul>
Herb Stratum           1.         Toxicodendron radicans           2.         Rosa multiflora           3.         Quercus rubra           4.         Lonicera tatarica           5.	(Plot size: <u>5'</u> )	<u>60 %</u> <u>20 %</u> <u>10 %</u> <u>%</u> % <u>%</u> %	= Total Cover <u>Y</u> <u>N</u> <u>N</u> <u>N</u> <u>N</u>	FACU FACU FACU	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>□ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be</li> </ul>
Herb Stratum           1.         Toxicodendron radicans           2.         Rosa multiflora           3.         Quercus rubra           4.         Lonicera tatarica           5.	(Plot size: <u>5'</u> )	<u>60 %</u> <u>20 %</u> <u>10 %</u> <u>%</u> % <u>%</u> %	= Total Cover	FACU FACU FACU	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>□ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in</li> </ul>
Herb Stratum           1.         Toxicodendron radicans           2.         Rosa multiflora           3.         Quercus rubra           4.         Lonicera tatarica           5.	(Plot size: <u>5'</u> )	60 % = 20 % 10 % % % % % % % %	= Total Cover	FACU FACU FACU	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>□ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> </ul>
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Herb Stratum           1.         Toxicodendron radicans           2.         Rosa multiflora           3.         Quercus rubra           4.         Lonicera tatarica           5.	(Plot size: <u>5'</u> )	<u>60 %</u> <u>20 %</u> <u>10 %</u> <u>%</u> % <u>%</u> % <u>%</u> <u>%</u> <u>%</u> <u>60 %</u>	= Total Cover	FACU FACU FACU	<ul> <li>☐ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>☐ 2 - Dominance Test is &gt;50%</li> <li>☐ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> <li>Sapling/Shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</li> </ul>
Herb Stratum           1.         Toxicodendron radicans           2.         Rosa multiflora           3.         Quercus rubra           4.         Lonicera tatarica           5.	(Plot size: <u>5'</u> )	<u>60 %</u> <u>20 %</u> <u>10 %</u> <u>10 %</u> <u>%</u> <u>%</u> <u>%</u> <u>%</u> <u>%</u> <u>60 %</u>	= Total Cover	FACU FACU FACU	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>□ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> <li>Sapling/Shrub – Woody plants less than 3 in. DBH</li> </ul>
Herb Stratum           1.         Toxicodendron radicans           2.         Rosa multiflora           3.         Quercus rubra           4.         Lonicera tatarica           5.	(Plot size: <u>5'</u> )	<u>60 %</u> <u>20 %</u> <u>10 %</u> <u>%</u> % <u>%</u> % <u>%</u> <u>%</u> <u>%</u> <u>60 %</u> <u>%</u>	= Total Cover	FACU FACU FACU	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>□ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> <li>Sapling/Shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</li> </ul>
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Herb Stratum           1.         Toxicodendron radicans           2.         Rosa multiflora           3.         Quercus rubra           4.         Lonicera tatarica           5.	(Plot size: <u>5'</u> )	$ \begin{array}{r}                                     $	= Total Cover	FACU FACU FACU	<ul> <li>□ 1 - Rapid Test for Hydrophytic Vegetation</li> <li>□ 2 - Dominance Test is &gt;50%</li> <li>□ 3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>□ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>□ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> <li><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> <li>Sapling/Shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</li> </ul>

**Remarks** (include photo numbers here or on a separate sheet): Photograph C-17.

SOIL							Sampling Point:	21	
Profile Descr	iption: (Describe to	the de	oth needed to docu	iment the	e indicator o	r confirm t	the absence of indicators.)		
Depth	Matrix		I	Redox Fe	atures		_		
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-6	10YR 4/4	100					Fine Sandy Loam		
·							· · ·		
								·	
·									
<sup>1</sup> Type: C=Co	ncentration, D=Deplet	ion, RN	Reduced Matrix, M	1S=Mask	ed Sand Grai	ns	<sup>2</sup> Location: PL=Pore Lini	ing, M=Matrix	
Hydric Soil Ir	ndicators:						Indicators for Problematic Hy	dric Soils <sup>3</sup> :	
Histosol (A			Dark Surface (S	7) (LRR I	R. MLRA 149	<b>B</b> )	2 cm Muck (A10) (LRR K, L	. MLRA 149B)	
Histic Epip			Polyvalue Below				Coast Prairie Redox (A16) (		
Black Histi			Thin Dark Surfac				5 cm Mucky Peat or Peat (S3) (LRR K, L, R)		
Hydrogen	Sulfide (A4)		Loamy Mucky M	lineral (F	1) (LRR K, L)		Dark Surface (S7) (LRR K, L)		
Stratified L	ayers (A5)		Loamy Gleyed M	/latrix (F2	)		Polyvalue Below Surface (S	8) ( <b>LRR, K, L</b> )	
	Below Dark Surface (A	.11)	Depleted Matrix	(F3)			Thin Dark Surface (S9) (LR	R, K, L)	
Thick Dark	Surface (A12)		Redox Dark Sur	face (F6)		Iron-Manganese Masses (F	12) ( <b>LRR, K, L</b> )		
Sandy Mu	cky Mineral (S1)		Depleted Dark S	Surface (F	7)	Piedmont Floodplain Soils (I	<sup>-</sup> 19) ( <b>MLRA 149B</b> )		
Sandy Gle	yed Matrix (S4)		Redox Depressi	ons (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)		
Sandy Red	dox (S5)						Red Parent Material (F21)		
Stripped N	latrix (S6)						Very Shallow Dark Surface (TF12)		
							Other (Explain in Remarks)		
<sup>3</sup> Indicators of	hydrophytic vegetatior	n and w	etland hydrology mu	ist be pre	sent, unless o	disturbed o	r problematic		
Restrictive L	ayer (if observed):						Hydric Soil Present?		
Type: G	ravel		Depth (inches):	6			🗌 Yes 🖾 No		
Remarks: No	o hydric soil indicators	are pre	sent. Soils in this lo	cation ar	e highly distu	rbed.			

**APPENDIX C - SITE PHOTOGRAPHS** 



Photograph C-2: View of upland SP-2 adjacent to W-1, looking north.

Lake Avenue Substation Project Lorain County, Ohio



Ground Photographs July 2012



Photograph C-3: View of SP-3 in PSS W-1, looking southeast.



Photograph C-4: View of upland SP-4 adjacent to W-1, looking east.

Lake Avenue Substation Project Lorain County, Ohio



Ground Photographs July 2012



Photograph C-5: View of SP-5 in PEM wetland fringe of W-2, looking southeast.



Photograph C-6: View of upland SP-6 adjacent to W-2, looking east.

Lake Avenue Substation Project Lorain County, Ohio



Ground Photographs July 2012 This foregoing document was electronically filed with the Public Utilities

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3/6/2015 3:48:06 PM

in

Case No(s). 14-2162-EL-BSB

Summary: Application for Lake Avenue Substation (Part 7 of 11) electronically filed by Mr. Robert J Schmidt on behalf of American Transmission Systems Inc.